1955 OUTLOOK ISSUE
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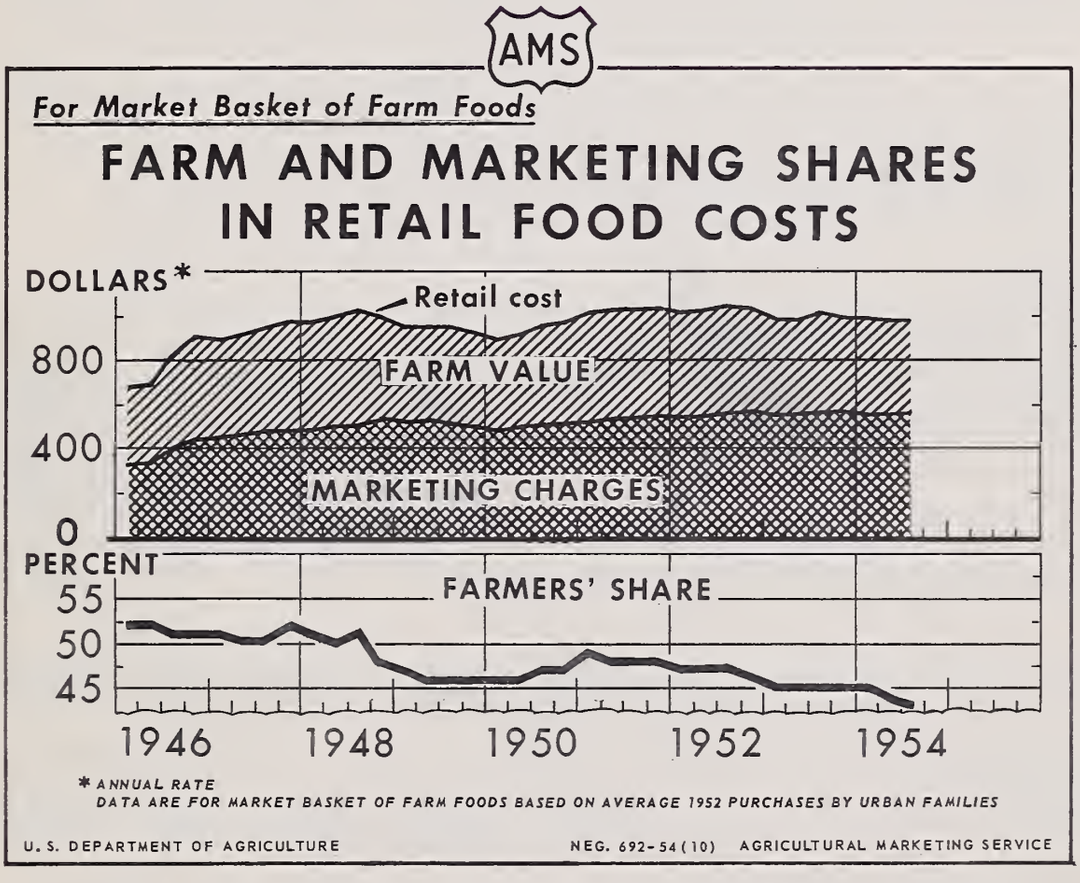
The MARKETING and TRANSPORTATION SITUATION

MTS-115



Since 1945, farmers have received from 43 to 52 cents of the dollar consumers spent for food in retail stores. However, the low of 43 cents exceeded the share for any year between the two World Wars. During most of the postwar period, marketing charges for foods in the market basket have increased steadily while the payments to farmers for equivalent quantities of farm products have been more variable. Variations in marketing charges are determined primarily by changes in wage rates, freight rates, electric power rates, rents, and other costs. These costs, which have increased appreciably since World War II, are more inflexible than prices of farm products, particularly during a period of deflation.

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

AGRICULTURE - WASHINGTON

STATISTICAL SUMMARY OF MARKET INFORMATION

Item	Unit or base period	1953 Year	1953 July-Sept.	1954 Jan.-Mar.	1954 Apr.-June	1954 July-Sept.
Farm-to-retail price spreads						
Farm-food market basket: 1/						
Retail cost	Dol.	1,002	1,014	997	987	987
Farm value	Dol.	452	461	445	433	423
Marketing margin	Dol.	550	553	552	554	564
Farmer's share of retail cost	Pct.	45	45	45	44	43
Cotton: 2/						
Retail cost	Dol.	55.75	55.66	56.17	55.57	---
Farm value	Dol.	6.93	7.05	6.78	7.03	---
Marketing margin	Dol.	48.82	48.61	49.39	48.54	---
Farmer's share of retail cost	Pct.	12.4	12.7	12.1	12.7	---
Tobacco: 3/						
Retail cost	Dol.	3.22	---	---	---	---
Farm value	Dol.	.495	---	---	---	---
Federal and State excise taxes	Dol.	1.31	---	---	---	---
Marketing margin excluding excise taxes	Dol.	1.41	---	---	---	---
Farmer's share of retail cost	Pct.	15.4	---	---	---	---
General economic indicators						
Consumers' per capita income and expenditures: 4/						
Disposable personal income	Dol.	1,566	1,569	1,562	1,561	---
Expenditures for goods and services	Dol.	1,441	1,444	1,427	1,439	---
Expenditures for food	Dol.	394	394	391	393	---
Expenditures for food as percentage of disposable income	Pct.	25	25	25	25	---

Item	Unit or base period	1953 Year	1953 Aug.	1954 June	1954 July	1954 Aug.
Hourly earnings per employed factory worker 5/	Dol.	1.77	1.77	1.81	1.80	1.79
Hourly earnings of food marketing employees 6/	Dol.	1.64	1.63	1.70	1.71	1.70
Retail sales: 7/						
Food stores	Mil. dol.	3,399	3,413	3,434	3,443	3,497
Apparel stores	Mil. dol.	860	812	885	855	823
Manufacturers' inventories: 7/						
Food and kindred products	Mil. dol.	3,513	3,411	3,492	3,468	3,463
Textile-mill products	Mil. dol.	2,612	2,646	2,422	2,376	2,375
Tobacco products	Mil. dol.	1,813	1,839	1,887	1,930	1,904
Indexes of industrial production: 8/						
Food and beverage manufactures	1947-49=100	107	108	108	105	106
Textiles and apparel	do.	107	106	97	100	99
Tobacco manufactures	do.	108	104	107	101	---
Index of physical volume of farm marketings	1935-39=100	159	161	147	151	168
Price indexes						
Consumer price index 5/	1947-49=100	114	115	115	115	115
Wholesale prices of food 5/	do.	104	105	103	106	106
Wholesale prices of cotton goods 5/	do.	94	94	88	89	89
Wholesale prices of woolen and worsted goods 5/	do.	112	112	110	110	110
Prices received by farmers 9/	do.	95	94	92	91	93
Prices paid by farmers 9/	do.	109	109	110	110	110

1/ Average quantities of farm food products purchased per wage-earner and clerical-worker family in 1952.
2/ 42 cotton articles of clothing and housefurnishings, weighted by average annual quantities bought by wage earners and clerical workers as reported in 1934-36 survey. Data are for last month of quarter. 3/ 4 tobacco products from 1 pound of leaf tobacco (farm-sales weight), weighted by leaf equivalent of tax-paid withdrawals. Data are for the fiscal year ending June 30. 4/ Seasonally adjusted annual rates, calculated from Dept. of Commerce data. 5/ Dept. of Labor. 6/ Weighted composite earnings in food processing, wholesale trade, retail food stores, and steam railways, calculated from data of Dept. of Labor and Interstate Commerce Commission. 7/ Seasonally adjusted, Dept. of Commerce. Annual data for 1953 are on an average monthly basis. 8/ Seasonally adjusted. Board of Governors of Federal Reserve System. 9/ Converted from 1910-14 base.

THE MARKETING AND TRANSPORTATION SITUATION

Approved by the Outlook and Situation Board October 22, 1954

CONTENTS

SUMMARY

Marketing margins for food products in 1955 probably will average near current levels or slightly above the average for this year. No substantial changes in wage rates or other marketing cost factors are in prospect. Some of the costs of marketing firms continued to increase during 1954 though the net effect on total costs was slight.

The rigidity of marketing margins while farm prices were falling has been an important factor in reducing the farmer's share of the consumer's food dollar in 1954 and other recent years. Although prices received by farmers for food products have declined more than 10 percent from 1952 to 1954, retail prices have decreased only 4 percent. This reflects the maintenance or increase of dollar-and-cent spreads by marketing firms.

During the first three quarters of this year, prices received by farmers for food products were about 4 percent less than during the same period last year. Most of this decline was passed on to consumers, as marketing margins increased only 1 percent. The farmer's share will average about 44 cents in 1954, less than in any year since 1941 but 4 cents more than the prewar 1935-39 average.

Average hourly earnings of employees in food marketing firms were 4 percent higher in August 1954 than a year earlier. Hourly earnings in some other lines were up, but in the textile-mill products and apparel and other finished textiles industries they were about the same as in August 1953. Any increases in hourly earnings in 1955 may be offset by increases in the productivity of labor.

No general change in railroad freight rates has occurred since May 1952 and none is in prospect during the coming year. The railroads have, however, applied to the Interstate Commerce Commission for a 30-percent increase in refrigeration charges per car and for special regional increases in charges for icing and re-icing services.

Costs of electric power, fuel and lighting materials, containers and packaging materials, and many other materials and services purchased by marketing firms have increased sharply during the postwar period, although recent changes generally have been small. Prices of coal, petroleum products, and some other materials have declined in the last year. Rents, maintenance costs, depreciation charges, and many miscellaneous charges have risen in recent years.

Available data indicate that total net profits of firms manufacturing food and tobacco products were larger in the first half of 1954 than in the same period of 1953. Firms manufacturing textile-mill products and apparel, however, had sharply lower profits. Profits (after taxes) of major food processors and distributors and of leading tobacco companies, both as a percentage of sales and as a percentage of stockholders' equity, were lower in 1951, 1952, and 1953 than in earlier postwar years.

The large volume of agricultural production and marketings in 1954 has created a high level of marketing activities. This is expected to continue through 1955. Available facilities, labor, and other resources generally have been adequate to handle the large volume of farm products marketed and no serious shortages are in prospect.

Firms engaged in marketing farm products have made large investments in plant and equipment in recent years. These investments have been made to expand output in response to the growth in population and the strong per capita demand, to produce new or better products, and to improve efficiency.

During recent years, new practices have been adopted which are expected to reduce some marketing costs. Among these innovations are the collection of milk in tank trucks, bulk handling of flour and sugar, and the use of lighter and cheaper containers in which to market fruits and vegetables. In manufacturing of dairy products, processing poultry products, retail trade, and a number of other lines of marketing agricultural products, the scale of operations has been increased, often leading to economies in the use of labor, equipment, and other resources. Changes have been made in methods of buying farm products. Prepackaging of foods and self-service retailing continue to grow. In more and more markets discounts are being granted to individual consumers on quantity purchases of fluid milk. Selling milk through vending machines is becoming more common. Since the introduction of paper containers, fluid milk is being distributed much greater distances from large plants. A growing volume of food products is sold in frozen form. Better methods of handling perishable foods have been devised. And systematic research is being made to find ways to increase the market for farm products in abundant supply. Trailer-on-flat-car service and several other developments in transportation appear to have significance for agriculture. These and other trends and developments are considered in the final sections of this Situation.

FOOD MARKETING MARGIN AND FARMER'S SHARE

Recent Farm-Retail Price Spreads

The retail cost of the family "market basket" of farm foods averaged $987 (annual rate) in the third quarter this year, the same as in the preceding quarter. 1/ (See table on inside front cover.) Farmers received $423 for equivalent quantities of farm produce, a decline of $10 from the previous quarter. The marketing margin -- the spread between the retail cost and farm value of the market-basket foods -- increased from $554 in the second quarter to $564 in the third. Consequently, the farmer's share of the retail cost declined from 44 percent to 43 percent during this period. 2/

Farm prices of food products averaged about 4 percent lower during the first three quarters of this year than in the same period of 1953. Marketing margins increased 1 percent but the greater part of the decline in farmers' prices was passed on to consumers in the form of lower retail prices.

Most of the decline in the farm value of the market-basket foods during 1954 resulted from lower prices for dairy products and poultry and eggs. Prices of these product groups also were lower at retail. Both farm and retail prices of meat products averaged higher during the first half of 1954 than in the same period a year earlier, but in the third quarter and probably in the fourth quarter, farm and retail prices will average lower than in the second half of 1953. Pork prices declined during the summer while beef prices remained relatively steady.

The marketing margin for the market basket has been slightly larger than last year though margins for most product groups this year have averaged about the same as in 1953. 3/ The marketing margin for bakery and cereal products has averaged about 3 percent higher in 1954 than a year earlier, continuing the steady rise since 1946. Processing and other marketing costs are relatively large in relation to the farm value of the grains used in bakery and cereal products.

1/ The "market basket" contains quantities of farm-produced food products equal to the average quantities purchased for consumption at home by urban wage-earner and clerical-worker families in 1952. The retail cost of all foods bought per family is more than the retail cost of the "market basket" of farm foods, which does not include imported foods, fishery products, or other foods of nonfarm origin, and does not include costs of meals purchased in eating places. Additional information concerning the contents of the market basket and the methods of estimating the market-basket data is given in the Supplement to the July-Sept. 1953 issue of this Situation.

2/ Estimates of the division of the retail cost between farmers and marketing agencies are based on comparisons of concurrent prices at the farm and retail levels, except for processed fruits and vegetables and sugar. During a period of rising prices, the farmer's share calculated on this basis is somewhat larger than the share which would be obtained by comparing prices received by farmers for particular lots of products with prices paid by consumers for the same lots after they have moved through the marketing system. The reverse is true in periods of declining prices.

3/ The marketing margin is the difference between the retail price paid by the consumer and the payment to the farmer for equivalent products. It is an estimate of the charges made by marketing agencies for assembling, processing, transporting, and distributing the farm products.

Table 1.- The farm food market basket: Retail cost, farm value, marketing margin, and farmer's share of retail cost, 1946-54

Year and month	Retail cost 1/	Farm value 2/	Marketing margin	Farmer's share
	Dollars	Dollars	Dollars	Percent
1935-39 average	3/	3/	3/	40
1946	767	4/397	4/370	4/52
1947	932	471	461	51
1948	994	498	496	50
1949	939	435	504	46
1947-49 average	955	468	487	49
1950	924	432	492	47
1951	1,026	495	531	48
1952	1,028	481	547	47
1953	1,002	452	550	45
1954 5/	985	430	555	44
1953				
Jan.	1,014	459	555	45
Feb.	992	450	542	45
Mar.	992	452	540	46
Apr.	988	445	543	45
May	994	451	543	45
June	1,010	448	562	44
July	1,011	464	547	46
Aug.	1,017	461	556	45
Sept.	1,013	460	553	45
Oct.	1,009	449	560	44
Nov.	990	442	548	45
Dec.	995	445	550	45
1954				
Jan.	1,006	452	554	45
Feb.	998	445	553	45
Mar.	987	437	550	44
Apr.	984	443	541	45
May	989	439	550	44
June	987	418	569	42
July	994	426	568	43
Aug.	989	430	559	43

1/ Retail cost of average quantities of farm foods purchased per urban wage-earner and clerical worker family in 1952, calculated from retail prices collected by the Bur. of Labor Statistics.

2/ Payment to farmers for equivalent quantities of farm produce minus imputed value of byproducts obtained in processing.

3/ Comparable dollar figures not available. The farmer's share and index numbers of the retail cost, farm value, and marketing margin for the years 1913-52 were published in the Oct.-Dec. 1953 issue of this Situation.

4/ The farm value including Government payments to producers in 1946 was $405, the marketing margin plus Government payments to processors was $383, and the farmer's share adjusted for Government payments to producers was 53 percent.

5/ Preliminary estimates.

Current data are given in the Statistical Summary, a monthly publication of the Agricultural Marketing Service.

Outlook for 1955

Farmers probably will receive about the same share of the consumer's retail food dollar during 1955 as in the third quarter this year -- 43 cents. The share for this year is tentatively estimated at 44 cents (table 1). The farmer's share has declined steadily since early in 1951, as a result of lower farm prices and an increase in the marketing margin (figure on cover page).

Marketing margins for food products in 1955 should average near current levels, or slightly above the average for this year. Further increases in cost rates of some factors used in marketing may occur in 1955 though any increases are likely to be moderate and may be largely offset by increases in productivity. (See section on Costs and Profits in Marketing Farm Products, pp. 7-16.) The spread between the retail cost and farm value of the market-basket foods has edged up slightly each year since 1952 after a substantial rise from 1950 to 1952 (table 1).

Prices received by farmers for food products in the coming year may average near current levels, or slightly below the average for this year. With continued large supplies in prospect, prices for most livestock products may average a little lower. Meat animals and dairy and poultry products make up about 75 percent of the farm value of the foods in the market basket while grains, fruits and vegetables, oilseed crops, and miscellaneous products account for only about 25 percent.

Retail prices of farm-produced foods may decline slightly again in 1955. The retail cost of the market-basket foods declined from $1,028 in 1952 to $985 in 1954 (tentative estimate), a decline of $43 or 4 percent. During this period, the farm value declined from $481 to $430 or more than 10 percent and the marketing margin increased by $8 (table 1). When the retail cost declines, the farm value declines by a larger percentage unless the marketing margin decreases by the same percentage as the retail cost. For those products of which the farmer's share is relatively small, changes in farm prices are less likely to affect retail prices than for products with a relatively large farmer's share. As the marketing margin becomes an increasing proportion of the price consumers pay for farm food products, retail prices become less sensitive to changes in prices at the farm level and are affected more by changes in the costs of marketing farm products.

COSTS AND PROFITS IN MARKETING FARM PRODUCTS

Marketing charges (including excise taxes) absorbed about 50 billion of the estimated 75 billion dollars that consumers in this country spent in 1953 for goods derived mainly from domestic agricultural products (fig. 1). Costs and profits of marketing firms engaged in assembling, shipping, and processing farm products and transporting, wholesaling, and retailing finished products made up the major part of this 50 billion dollar marketing bill. Excise taxes, mainly on tobacco and alcoholic beverages, accounted for the remainder. The share that marketing agencies received of the consumers' expenditures varied widely among products. Generally, the more processing, transportation, and other marketing operations embodied in the product sold to consumers, the larger the marketing share and the smaller the farmer's share (fig. 2).

Figure 1

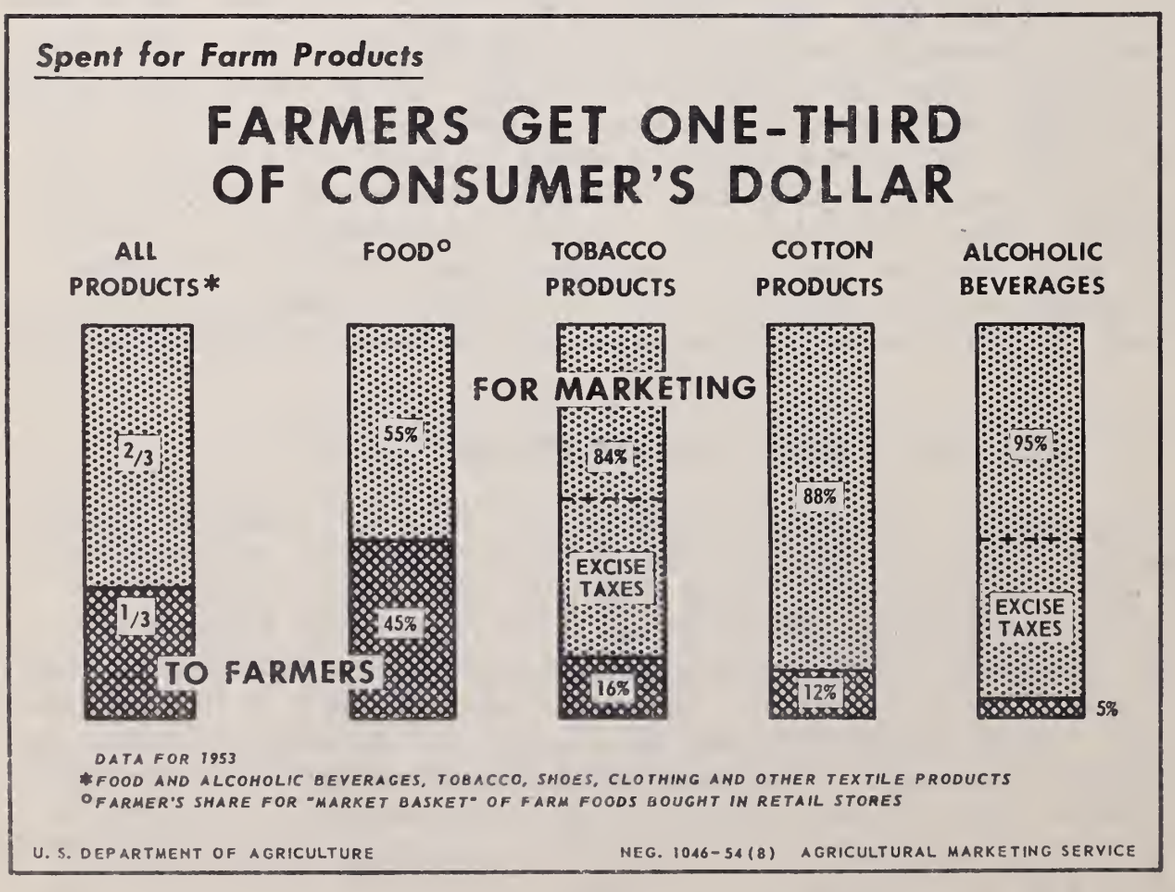


Figure 2

Labor Costs

Labor is the major cost item in this 50 billion dollar marketing bill. Salaries, wages, and other labor costs incurred by firms engaged in assembling, processing, and distributing farm-produced food products accounted for nearly half of the total cost of marketing these products in recent years. Labor costs are an even larger part of the costs of firms that manufacture and distribute textile products.

Average hourly earnings of employees of firms marketing farm food products were $1.70 in August 1954 (the latest month for which data are available), 4 percent higher than in the same month of 1953 (table 2). This continued a steady upward trend that began in the mid-1930's. In August 1954, earnings averaged $1.79 for all employees of manufacturing firms, $1.84 for all those in wholesale trade, and $1.46 for those in retail trade.

Hourly earnings of employees in the textile-mill products and apparel and other finished textile products industries varied but little during the year that ended in August 1954. Earnings of employees in retail apparel and accessories stores averaged 3 percent higher in August than a year earlier.

Average hourly earnings of employees in the tobacco manufacturing industry were about 6 percent higher in August of this year than in the same month of 1953.

Costs of "fringe" benefits, such as paid vacations, pensions, and group insurance, are not included in average hourly earnings. When these benefits, which have been increased considerably in recent years, are taken into account, the rise in labor costs is greater than the rise in hourly earnings.

Changes in hourly earnings reflect mainly changes in wage rates though they also may reflect variations in premium pay for overtime and late shift work and changes in employment between relatively high-paid and low-paid workers. Wage rates may increase in some lines of marketing in 1955. Present indications, however, are that any advances will be relatively moderate. Wage increases have been less widespread in 1954 and generally smaller than in other recent years.

By increasing the productivity of labor, marketing firms offset to some extent the effects of rising wage rates. Labor costs per unit of output have risen less than the average hourly earnings of employees. It is estimated that labor costs per unit of product handled by food marketing firms increased 35 percent from 1947 to 1953 compared with a rise of 43 percent in average hourly earnings. The smaller increase in unit labor costs resulted from an increased output of marketing services per man-hour of labor. Output per man-hour has been increased by the large investments made by marketing firms in plant and equipment in recent years (pp. 17 and 18), and also by improved methods of performing tasks, better training of employees, and more efficient scheduling of the flow of work.

The outlook for 1955 suggests that further increases in the productivity of labor may largely offset most increases in wage rates. The supply of experienced workers should be adequate, with less turnover and less hiring of inexperienced workers than in most recent years.

Table 2.- Average hourly earnings of employees of firms marketing food, tobacco, and textile products, 1939 and 1947-54

Year and month	Food marketing 1/	Tobacco manufactures 2/	Textile-mill products 2/	Apparel and other finished textile products 2/	Retail apparel and accessories stores 2/
	Dollars	Dollars	Dollars	Dollars	Dollars
1939	0.62	3/0.48	3/0.46	---	0.56
1947	1.14	.90	1.04	3/1.12	1.03
1948	1.24	.95	1.16	3/1.18	1.08
1949	1.31	.99	1.19	3/1.17	1.11
1950	1.37	1.07	1.24	3/1.20	1.12
1951	1.47	1.13	1.33	1.29	1.17
1952	1.55	1.17	1.36	1.30	1.22
1953	1.64	1.24	1.37	1.33	1.27
1953					
Jan.	1.61	1.21	1.37	1.33	1.26
Feb.	1.61	1.23	1.37	1.34	1.24
Mar.	1.61	1.26	1.37	1.32	1.23
Apr.	1.62	1.28	1.37	1.29	1.25
May	1.63	1.28	1.37	1.29	1.27
June	1.63	1.27	1.36	1.32	1.27
July	1.63	1.28	1.36	1.33	1.26
Aug.	1.63	1.22	1.36	1.36	1.25
Sept.	1.65	1.20	1.37	1.35	1.28
Oct.	1.66	1.22	1.37	1.35	1.29
Nov.	1.68	1.24	1.37	1.35	1.30
Dec.	1.67	1.25	1.37	1.36	1.31
1954					
Jan.	1.70	1.27	1.36	1.37	1.31
Feb.	1.69	1.29	1.37	1.37	1.30
Mar.	1.69	1.32	1.36	1.37	1.29
Apr.	1.69	1.35	1.36	1.33	1.31
May	1.70	1.34	1.37	1.32	1.30
June	1.70	1.35	1.36	1.33	1.31
July	1.71	1.37	1.36	1.34	1.31
Aug.	1.70	1.29	1.36	1.34	1.29

1/ Weighted composite earnings in food processing, steam railroads, wholesale and retail food trades, calculated by the Agr. Market. Serv. from data of the U. S. Dept. of Labor and the Interstate Commerce Commission.

2/ U. S. Dept. of Labor.

3/ Not strictly comparable with data for later years.

Transportation Charges

Charges for shipping agricultural products and products derived from them probably will be about the same in 1955 as in 1953 and 1954. No general change in railroad freight rates has occurred since May 2, 1952. The 15 percent surcharge on rail and water carrier freight rates which was to expire February 28, 1954, has been extended until December 31, 1955, by order of the Interstate Commerce Commission. Railroad freight rates paid by shippers of farm products averaged slightly higher in 1953 than in the previous year because the increases authorized in 1952 applied only to shipments made after May 2 of that year (table 3).

Table 3.- Index numbers of railroad freight rates for specified commodities, 1945-53 1/

(1947-49 = 100)

Year	Livestock	Meats	Fruits and vegetables	Wheat	Cotton	Combined index
1945	73	72	79	75	78	76
1946	75	71	80	76	79	77
1947	86	85	90	87	90	88
1948	103	103	103	103	102	103
1949	111	112	107	110	108	109
1950	114	115	109	112	111	112
1951	117	119	110	115	114	114
1952	127	127	116	123	124	122
1953 2/	131	130	117	126	128	124

1/ Index numbers based on average freight rates paid by shippers for lowest cost carlot shipments. 3 percent Federal transportation tax and charges for protective services not included.

2/ Preliminary.

Two substantial increases in motor carrier class rates have been made recently. (See p. 13.) However, a large proportion of the farm products shipped by truck are hauled in farmers' trucks or by carriers who are exempt from most ICC regulation. Sufficient data are not available to give a dependable indication of the trend in rates charged by these carriers during the last year.

Rail express rates averaged higher in 1954 than in 1953, as an increase in these rates became effective October 1, 1953. But, the effect of this increase upon the total bill for shipping farm products was not large, as the volume shipped by express is small.

Transportation charges have risen sharply since World War II (fig. 3). Rail freight rates for agricultural products were approximately 63 percent higher in 1953 than in 1945. Increases in rates on products manufactured from agricultural raw materials were even larger. For example, rates for sugar, sirup, and packaged foods were up 86 percent. Data relating to rates of exempt motor carriers are meager, but it is likely that these rates generally have risen in about the same proportion as rail rates.

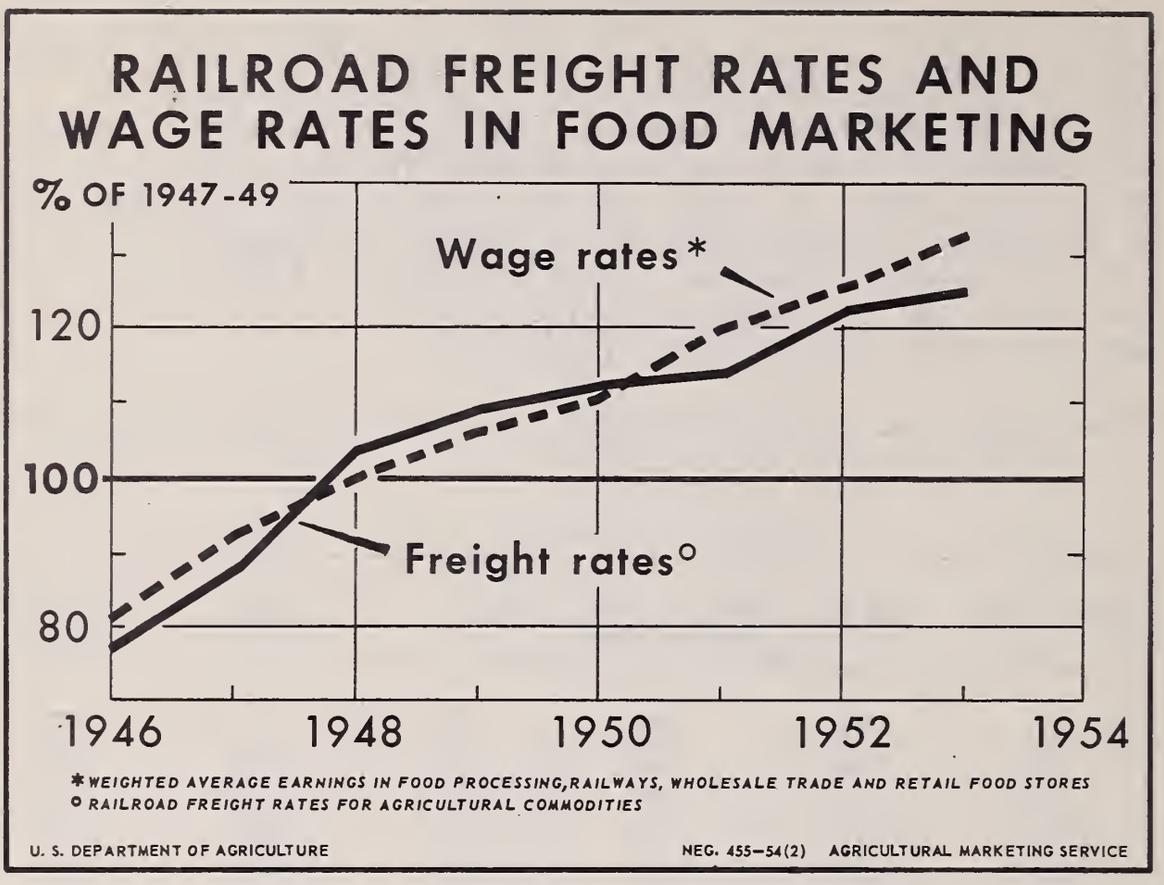


Figure 3

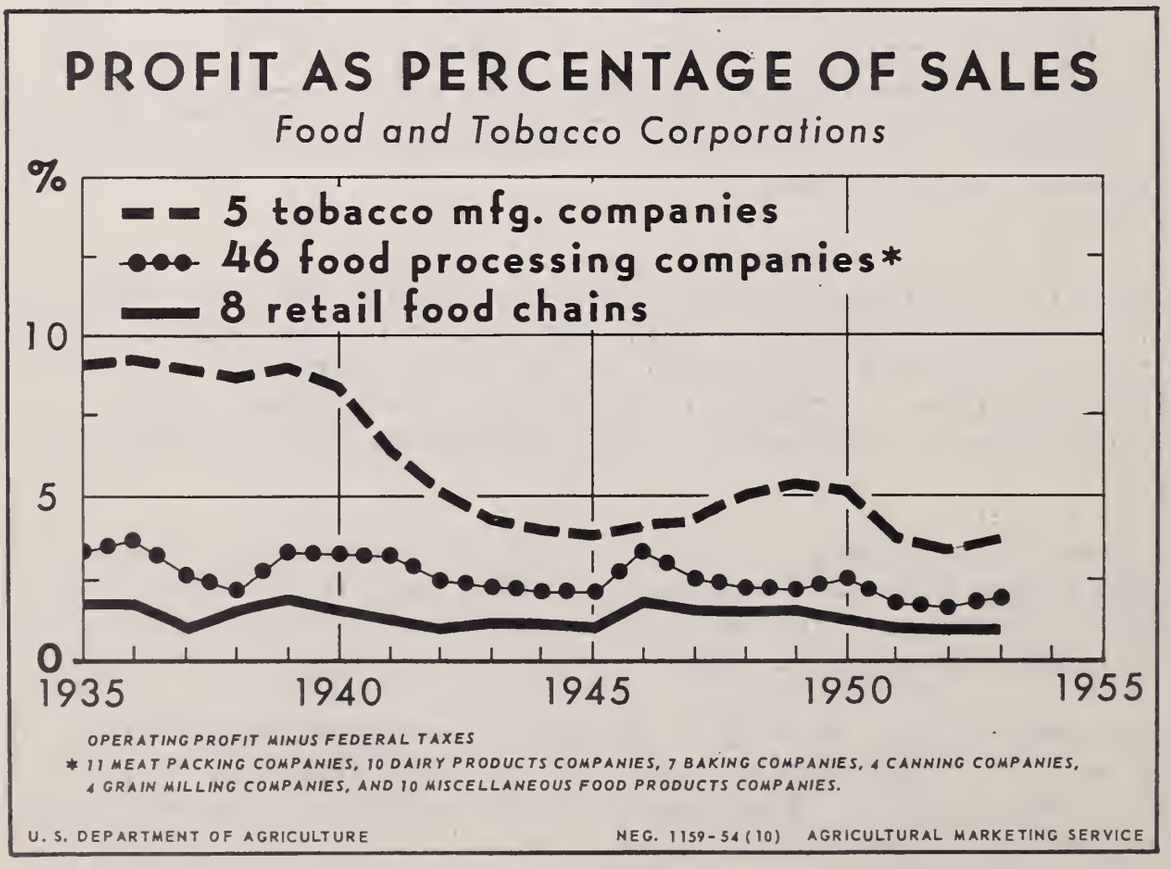


Figure 4

Increase in Motor Carrier Class Rates

On December 7, 1953, increases in class rates of regulated motor carriers ranging as high as 25 percent were made effective between the Middle Atlantic and New England Territories. 4/ On May 24, 1954, increases in motor carrier class rates ranging as high as 18 percent were made effective between points in the Middle Atlantic Territory.

The motor carriers claimed the increases were necessary to put motor carrier class rates on a par with the class rate scale prescribed for railroads by the Interstate Commerce Commission in Docket No. 28300, Class Rate Investigation, 1939. In some instances, however, the increased truck rates range as high as 35 percent above the railroads' 28300 scale. Shippers petitioned the Interstate Commerce Commission for suspension of the rate increases. The Commission refused to suspend the rates but ordered a general investigation.

The investigation of the two rate increases is covered by ICC Dockets Nos. MC-C-1600, Class Rates Between Middle Atlantic and New England Territories, and MC-C-1646, Class Rates Between Points in Middle Atlantic Territory. The date of the hearing has been set by the ICC for November 29, 1954, in Washington, D. C. The United States Department of Agriculture is a participant in these proceedings.

Proposed Increase in Railroad Refrigeration Charges

The railroads are seeking an average increase of 30 percent in refrigeration charges, with exceptions, as well as special regional increases for services of icing and re-icing. 5/ Hearings were resumed in Washington, D. C., on October 12, 1954, after being postponed to allow shippers time to examine corrected cost data which were to be presented by the railroads. Prior hearings had been held in several cities. The United States Department of Agriculture is participating in these proceedings.

Investigation of Mountain-Pacific and Transcontinental Railroad Class Rates

The Interstate Commerce Commission has held hearings resulting from its own motion to investigate the reasonableness of class rates in the Mountain-Pacific Territory and between that territory and the area east of the Rocky Mountains.

The Commission further seeks to determine whether these rates should be changed to the class rate scale prescribed earlier by the ICC for that

4/ The territory of the Middle Atlantic Motor Carrier Conference includes New York, New Jersey, Delaware, Maryland, the District of Columbia, West Virginia, most of Pennsylvania and Virginia, and a very small portion of North Carolina.

5/ For additional information see the May 1954 issue of this Situation.

part of the country east of the Rockies or a new class rate scale which has been proposed by the western railroads. The western railroads' proposed rate scale is reportedly lower than the present class rates applicable to this traffic but is higher than the scale given in Docket 28300. Shippers in the Mountain-Pacific Territory were not a party to the Docket 28300 proceedings (begun in 1939), primarily because the railroads had convinced them that many of the commodity rates in this territory would have to be increased if the class rates were reduced.

This inverse relationship between class and commodity rates has again been asserted by the railroads in the current proceedings, but shippers' representatives and the United States Department of Agriculture are vigorously contesting the railroads' position. The USDA contends that railroad operating efficiency improved relatively more in the Mountain-Pacific Territory than in the Eastern District during the period 1946 to 1953; and that the relatively higher operating costs in the Mountain-Pacific Territory which were found by the Interstate Commerce Commission to exist during the period 1930 to 1940 do not exist at the present time.

The ICC also has included in the current investigation the relation of class rates to the commodity and classification exception rates. In addition, the Commission stated that consideration would be given "to the entry of an order requiring class rates to apply when lower than the corresponding commodity and classification exception rates."

Other Costs

Costs of many materials and services bought by marketing firms have risen sharply during the postwar period. Prices of paperboard rose 26 percent between 1947 and 1954 and those of converted paper and paperboard were up 12 percent. These materials are bought in large quantities by marketing firms for use in packaging. Metal containers averaged 43 percent higher. Prices of electric power and of fuel and lighting materials increased an average of about one-fifth, machinery and motive products one-third, and lumber and wooden products about one-fourth.

Rents have risen and costs of maintaining and repairing plant and equipment have increased. Local and State taxes generally have been raised to pay for schools, hospitals, roads, and increases in the costs of providing Government services. Depreciation charges have been increased as a result of the postwar expansion in plant and equipment.

Costs of advertising and other sales promotion programs and of product development and research likewise have risen in recent years.

Such costs as charges for electric power, telephone, and other public utilities, State and local taxes, and rents tend to be relatively inflexible, particularly in a downward direction. Many of these costs are fixed by contractual agreements or Government agencies. These cost items have risen more slowly in recent years than some other costs but they are more likely to increase in the coming year than are costs of most materials and supplies used in marketing farm products.

Profits of Marketing Firms

Net profits reported by firms manufacturing food and tobacco products generally were larger in the first half of 1954 than in the same period of the previous year, according to data now available. Firms manufacturing textile-mill products and apparel, however, had sharply lower profits. Dollar sales of food manufacturers in the first half of this year totaled 7 percent more than in the January-June period of 1953, but sales by manufacturers of textile-mill products and tobacco products were down 11 percent and 5 percent, respectively.

Profits (after taxes) of major food processing and distributing companies and tobacco companies, both as a percentage of sales and as a percentage of stockholders' equity, were lower in 1951, 1952, and 1953 than in earlier postwar years (fig. 4). (See p. 12.) Ratios of profit to sales generally have been lower in the postwar years than in the prewar 1935-39 period, but larger sales in the postwar period have raised the profit-to-stockholders' equity ratios of the food companies above prewar levels. Dollar sales of these companies were larger in 1953 than in earlier years.

Net profits (before taxes on income) for a group of 46 companies processing food products averaged 4.0 cents per dollar of sales in 1953. The rate after payment of taxes was 1.9 cents (table 4). The respective rates for 1952 were 3.4 cents and 1.6 cents. Profits (after taxes) for these companies and a few additional ones, expressed as a percentage of stockholders' equity, rose from 8.1 percent in 1952 to 9.1 percent in 1953.

The average rate of profit per dollar of sales for eight retail food-store chains in 1953 was 2.1 cents before taxes and 0.9 cent after taxes. Profits (after taxes) as a percentage of stockholders' equity was 11.0 percent (table 4). Profit rates, both before and after taxes, for this group of companies were slightly higher in 1953 than in 1952.

Profits of five wholesale food distributors in 1953 averaged 2.1 cents per dollar of sales before taxes and 1.2 cents after taxes. As a percentage of stockholders' equity, the profits (after taxes) of these companies were 8.0 percent in 1953 compared with 5.4 percent in 1952 (table 4). Profit rates of these companies have fluctuated rather widely in recent years.

Profits per dollar of sales of five leading tobacco products manufacturing companies in 1953 averaged 9.7 cents before taxes and 3.8 cents after taxes. Their profits after taxes were 10.1 percent of the stockholders' equity. Profits were higher in 1953 than in 1952 relative to both sales and stockholders' equity (table 4).

In the textile mill products industry, profits before taxes averaged 4.6 cents per dollar of sales in 1952 and 5.1 percent in 1953. Corresponding rates after taxes were 1.9 cents and 2.2 cents. Profits (after taxes) as a percentage of stockholders' equity were 4.2 percent in 1952 and 4.6 percent in 1953. Profits per dollar of sales in the apparel and finished textile industries in 1953 were 2.6 cents before taxes and 1.2 cents after taxes, compared with 2.4 cents and 1.0 cent in 1952. The average rate of profit (after taxes) to stockholders' equity was 4.8 percent in 1952 and 5.3 percent in 1953.

Table 4.- Net profits (less provision for taxes on income) as percentage of stockholders' equity and as percentage of sales, leading food and tobacco companies, 1935-53

Year	Food processing companies									
	8 baking companies	7 grain mill products companies	11 meat packers	5 canning companies	10 dairy products companies	10 miscellaneous food companies 1/	51 companies combined	5 wholesale food distributors	8 retail food chains	5 tobacco companies
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Profits as percentage of stockholders' equity 2/										
Average 1935-39	8.1	10.4	3.6	5.6	7.9	9.8	7.4	---	8.4	13.9
1940	7.9	9.8	5.4	6.6	8.7	9.2	7.7	---	9.7	14.2
1941	7.6	9.5	8.6	10.5	11.1	10.8	9.7	---	9.4	12.3
1942	9.5	8.0	8.1	8.4	11.3	8.7	9.0	---	7.4	11.0
1943	9.3	10.2	7.9	8.6	11.5	9.1	9.2	---	7.8	10.4
1944	8.7	10.3	7.2	9.1	10.1	8.2	8.5	11.2	8.2	9.7
1945	10.0	10.9	5.2	10.2	10.0	8.1	8.2	12.7	8.1	9.2
1946	18.3	13.2	9.9	18.4	17.0	12.6	13.6	27.3	18.1	11.4
1947	15.6	15.7	11.0	13.4	13.2	14.6	13.4	18.8	18.8	12.6
1948	17.6	14.6	5.6	9.6	12.5	13.5	11.3	16.1	16.9	14.4
1949	16.5	13.8	3.9	5.4	14.5	10.5	10.0	12.5	15.4	14.3
1950	15.5	13.4	5.9	15.3	13.3	12.7	11.5	10.0	13.8	13.1
1951	11.7	11.0	5.1	6.8	10.2	9.0	8.5	9.5	10.0	9.9
1952	12.1	11.0	3.2	7.5	9.9	9.0	8.1	5.4	9.8	9.5
1953	12.5	10.7	6.7	6.6	10.7	9.1	9.1	8.0	11.0	10.1

	Food processing companies									
	7 baking companies	4 grain mill products companies	11 meat packers	4 canning companies	10 dairy products companies	10 miscellaneous food companies 1/	46 companies combined	5 wholesale food distributors	8 retail food chains	5 tobacco companies
Profits as percentage of sales										
Average 1935-39	7.1	4.2	0.9	3.1	3.1	8.6	3.0	---	1.5	9.1
1940	6.3	4.6	1.4	3.5	3.2	7.9	3.2	---	1.5	8.4
1941	5.3	3.5	1.7	3.9	3.4	7.8	3.2	---	1.2	6.5
1942	4.8	2.6	1.2	3.1	2.9	5.5	2.4	---	.9	5.1
1943	4.0	2.2	1.1	3.5	2.8	5.0	2.2	---	1.0	4.3
1944	3.3	2.3	1.0	3.3	2.4	4.9	2.0	.9	1.0	4.0
1945	3.6	2.6	.9	3.8	2.3	4.0	2.0	1.0	.9	3.8
1946	6.0	2.8	1.7	6.1	3.5	6.0	3.3	2.2	1.7	4.0
1947	4.5	2.9	1.2	5.0	2.6	5.6	2.5	1.8	1.5	4.3
1948	4.9	3.3	.6	3.7	2.5	5.4	2.2	1.8	1.4	5.0
1949	5.0	3.6	.5	2.4	3.3	4.7	2.1	1.5	1.4	5.4
1950	4.9	3.1	.8	5.3	3.2	5.3	2.5	1.2	1.2	5.1
1951	3.5	2.3	.6	2.5	2.2	3.6	1.7	1.1	.9	3.8
1952	3.5	2.5	.4	2.7	2.1	3.6	1.6	.7	.8	3.4
1953	3.5	2.5	.8	2.3	2.3	3.6	1.9	1.2	.9	3.8

1/ Includes sugar and corn refining companies, processors of vegetable oils, and companies manufacturing a wide variety of packaged foods.

2/ Ratio of net profits to average of stockholders' equity at the beginning and end of the year. Stockholders' equity is excess of total balance sheet assets over liabilities.

Compiled from financial statements reported in Moody's Industrials.

THE OUTLOOK FOR MARKETING FACILITIES AND SERVICES

A strong demand for marketing services in the agricultural field is anticipated for 1955. A large volume of products to be marketed, a high level of consumer income, growth in the population, and the tendency to increase marketing services per unit of product handled are expected to maintain the demand for services of firms engaged in assembling, processing, and distributing agricultural products.

Marketing activities in the year ahead are expected to remain at the high level of this year. Marketings by farmers this year will be close to the record volume of 1953. A reduction in the volume of crops marketed will be about offset by an increase in livestock and livestock products. Further restrictions on the acreage of wheat and cotton will reduce the volume of these crops produced and marketed next year, unless weather conditions are unusually favorable. But these decreases will be at least partly offset by the other crops produced on the diverted acreage. The total crop production may be about as large as this year if growing conditions are average. Marketings of livestock and livestock products probably will be at least as large in 1955 as in the current year.

Production of manufactured foods and beverages during the first 9 months of this year was about equal to a year earlier. The output of tobacco products was a little smaller than last year and the production of textile products was down about 10 percent.

Disposable personal income and consumer expenditures may be about the same next year as in 1954 and possibly higher. Total expenditures for food in 1954 probably are somewhat larger than last year but expenditures for clothing and tobacco are slightly less.

Available marketing facilities, labor, and other resources generally were adequate to handle the large volume of agricultural products marketed during the past year. No serious shortages are anticipated in the coming year. Temporary shortages of storage space or railroad cars or motortrucks for hire frequently develop at some points during harvest seasons, but prolonged, widespread shortages have not occurred during recent years.

Investment in Marketing Facilities

Outlays for plant and equipment by processors of farm products are expected to be smaller in 1954 than in 1953, according to the latest survey conducted by the Department of Commerce and the Securities and Exchange Commission. Annual outlays reached a peak in 1948 and have declined since except for upturns in 1951 and 1953. It is expected that investments by manufacturers of food and beverages will total 764 million dollars this year, 7 percent smaller than in 1953 (table 5). In the textile mill products industry, investment in 1954 is expected to be 290 million dollars, 17 percent less than last year and 53 percent below the 1948 level. Capital outlays by railroads may be more than one-third less than in 1953, but outlays by other types of transportation agencies may be down less than 5 percent. Reports of trade associations indicate that the number of new retail food stores opened in 1953 probably was smaller than in previous years, but more stores were remodeled. These sources report that promising locations for new markets were more difficult to find than in earlier years.

Table 5.- Investments in new plant and equipment by firms processing and transporting farm products, 1946-54

Year	Processing industries		Transportation	
	Food and kindred products	Textile-mill products	Railroads	Other than rail
	Million dollars	Million dollars	Million dollars	Million dollars
1946-49 average	886	485	1,036	1,098
1950	760	450	1,111	1,212
1951	853	531	1,474	1,490
1952	769	434	1,396	1,500
1953	818	351	1,312	1,464
1954 1/	764	290	851	1,405

1/ Estimates based upon anticipated capital expenditures as reported by business firms in Aug. 1954.

U. S. Dept. of Commerce and Securities and Exchange Commission.

Although outlays for plant and equipment by firms engaged in marketing farm products will be smaller in 1954 than in other recent years, they are still large. And capital outlays may be maintained at relatively high levels in the years ahead. Technological improvements, an increased rate of obsolescence, and the need to offset increased wage rates and reduce costs have stimulated investment in recent years. These factors probably will operate just as decisively in the future. The recently enacted Federal tax legislation allows business firms to depreciate a substantially larger proportion of an investment in plant or equipment in the early years of its life than was permissible formerly. This provision is expected to encourage investment.

Grain Storage Capacity

The need for grain storage capacity has increased considerably during recent years, chiefly because of the large volume of grain held under the Government price-support programs, and substantial additions to capacity have been made. Data are not available regarding total storage capacity. That in elevators reporting grain stocks to the United States Department of Agriculture was increased from 434 million bushels in 1946 to 592 million bushels in 1954. To encourage the construction of new grain-storage space, the Commodity Credit Corporation announced on August 17, 1953, that it would enter into agreements with commercial firms and cooperatives to guarantee storage space occupancy provided they would construct storage space of a specified type in areas where it was needed. 6/ Applications for guarantees

6/ For details concerning this program, see the Oct.-Dec. 1953 issue of this Situation.

were accepted until September 3, 1953. Storage space for approximately 85 million bushels of grain has been built under the terms of this program and space for an additional 60 to 70 million bushels is being erected. In May 1954, the program was reopened. Provision was made for occupancy guarantees for wooden elevators if properly constructed to minimize fire, insect, and rodent hazards. Previously, the program had been limited to concrete and steel structures. In August 1954, the CCC discontinued accepting applications for further storage use guarantees. It is not possible at present to ascertain how much capacity will be increased by this extension of the program.

During the last year, the capacity of emergency-type grain storage structures in grain-producing areas owned by the Commodity Credit Corporation has been increased to 844 million bushels from 543 million bushels.

In recent years storage space for wheat has been provided in the "moth ball" fleet of World War II Liberty ships and in airplane hangars and other structures not built to store grain.

Cold Storage Space

Gross space in refrigerated storage warehouses increased from 711 million cubic feet in 1951 to 748 million cubic feet in 1953, according to a biennial survey conducted by the United States Department of Agriculture. All of this increase was in freezer space (in which temperature can be held at 19° F. or lower). Cooler space (temperature above 19° to 50° F.) declined slightly. The need for freezer space has been increased by the development of the frozen foods industry. Most of the increased capacity was in warehouses located in the West North Central, South Atlantic, and Pacific Coast States.

Approximately 65 percent of the public cooler space was occupied on August 31, 1954, and 78 percent of the public freezer space was in use. Average occupancy on that date is 62 percent for cooler space and 74 percent for freezer space.

Railroad Cars

Class I railroads owned 677,590 serviceable boxcars on September 1, 1954, compared with 693,579 a year earlier. Boxcar loadings for the first 36 weeks of 1954 were 8 percent less than for the comparable period in 1953. This decline eased the supply situation. The number of new boxcars on order September 1, 1954, was 7,138 compared with 10,935 last year.

Class I railroads and railroad owned and controlled refrigerator lines owned 95,318 serviceable refrigerator cars on September 1, 1954, slightly more than the year before. The number on order was 2,194, compared with 2,664 last year. Mechanical refrigerator cars in service numbered 640, compared with 319 on September 1, 1953. A large part of the frozen foods shipped by rail is handled in mechanical refrigerator cars. Refrigerator car loadings for the first 35 weeks of 1954 totaled nearly 5 percent less than during the same period last year. Loadings of fresh fruits and vegetables alone for the same period were 6 percent less than during the same period of 1953.

TRENDS AND RECENT DEVELOPMENTS IN MARKETING FARM PRODUCTS

The rapid strides in agricultural production in recent decades have required the opening up of larger and more distant markets. To serve these wider markets, a complex system of marketing facilities and institutions has been developed. The job of marketing farm products has grown as the physical output of agriculture has increased and as more and more services were shifted from the farm and the household to the marketing system. During the past 25 years the output of American farms increased by about 50 percent but farm marketings increased nearly 60 percent as the quantity of products farmers kept for their own use declined.

Considerable progress has been made in recent years in processing and distributing food and fiber products. Further geographical specialization in agricultural production has increased the need for better transportation and more attention to quality maintenance. This has led to more careful packaging and handling, more and better sorting and grading, more and improved temperature and humidity control, and better storage facilities.

Modern marketing has become a system for selling services to consumers along with food and textiles. The purchase of partially or fully prepared foods and ready-made textile products saves the time and effort of the homemaker, but these products add to the services and the costs of marketing. The rapid expansion in the use of commercially prepared biscuit and cake mixes, ready-to-cook poultry, prepackaged vegetables that need no cleaning and trimming before cooking, frozen French fried potatoes, frozen meat pies, and other frozen foods that need only heating before serving means that much work is now being done by marketing agencies that was formerly done in the home. While the high level of consumer incomes has contributed to the widespread acceptance of "convenience" products in recent years, another cause has been the greater proportion of women working outside the home. "Convenience" products perhaps will be introduced at an increasing rate in the future. More resources now are being devoted to developing and promoting these products than formerly. Also, the growing readiness and ability of consumers to purchase them will encourage their development.

Still other factors are likely to increase the task of the marketing system in the years ahead. Population is increasing at a rate of 2-1/2 to 3 million per year. The number of persons living on farms and in rural areas is expected to decline further. As farm people usually grow more of their own food and do more food preparation at home than persons living in urban areas, the need for marketing services is increased as more people move from farms to cities. Thus, the facilities and resources needed for marketing agricultural products are likely to increase markedly in the years ahead.

Cost rates of marketing firms, such as wage rates, transportation rates, charges for electricity and other public utilities, and for other materials and services used by marketing firms are relatively inflexible and significant reductions cannot be expected except in the event of a severe deflation. Profits of marketing firms make up a small part of total marketing charges so that even a sizable reduction in profits would not mean a large reduction in the marketing bill. Therefore, the efficiency of the agricultural marketing system must be maintained and improved in order to provide services to consumers without greatly reducing the share of the consumer's dollar received by farmers.

Some examples of improved marketing practices that are expected to reduce costs are discussed in the following sections. Other important developments that tend to reduce costs or expand the markets for agricultural products also are considered.

Reducing Costs Through New Marketing Practices

Many of the new marketing practices that have come into use during recent years were adopted partly because they were expected to reduce operating costs, though other advantages, such as improvement in product, were expected too. A well known example is every-other-day delivery of milk to homes, which was introduced during the war. During recent years, delivery has been reduced to 3 days a week in several cities. This is an instance where the advantages of a saving in operating costs seemed to outweigh any disadvantage of the reduction in marketing services.

Bulk Assembly of Milk

The bulk system of milk assembly now in use in many parts of the United States was adopted because of a belief that costs of handling would be reduced and the product improved. With this system, milk is stored at the farm in a refrigerated tank from which it is pumped into a tank truck for delivery to a receiving plant where it is pumped from the tank truck. Often the tank truck picks up the milk every other day. The manual labor required to load cans into a pickup van at the farm and unload, weigh, dump, wash, and reload them at the receiving point is eliminated. Every-other-day pickup reduces costs of operating trucks.

The assembly of milk in tank trucks is becoming more widespread and probably will be extended throughout the major dairy areas. At first the system was thought to be adapted only to large volume producers but through every-other-day shipments it is feasible for larger numbers of producers. Less frequently shipments also will add flexibility to procurement systems, especially as it comes into more general use.

The ease in cleaning equipment, cooling milk rapidly and holding it at low temperatures results in generally reduced bacteria counts and improved sediment tests. Improved quality and savings in hauling and plant costs may be reflected in higher prices. These tend to offset the larger capital investment required of the producer. The bulk system encourages the use of pipeline milking systems, milking parlors, and other labor-saving techniques that reduce costs of producing milk.

The disadvantages of having both bulk and conventional can systems together become less as a greater volume of milk is handled by the bulk system. Initially, the introduction of bulk handling causes difficulties for both producers and haulers. The difficulties of bulk handling are reduced as the system becomes more widely adopted while can service becomes increasingly difficult. Can hauling rates generally rise to reflect changes in cost as large-volume producers transfer to the bulk system.

The bulk method reduces the importance of country milk receiving stations and enables milk supplies to be readily shifted among plants or market areas, but the large investment the producer must make in a tank

and other specialized equipment may tend to tie the producer to a specific sales outlet. This sometimes happens when only one or two milk dealers in the area receive bulk milk or when the dealer has financed the installation of the tank and other equipment.

Total handling costs with the bulk system generally are reduced as the number of producers adopting the system increases. There are some shifts in costs resulting from bulk assembly. For example, the task of weighing and sampling milk is shifted from the plant personnel to the hauler and the producer has the task of cleaning the bulk farm tank, replacing the can-washing operation in the plant.

Bulk Handling of Flour

The practice of hauling flour in bulk from mill to wholesale distribution centers and from mills and distribution centers to bakeries has increased during the last year. Bulk handling of flour between mill and bakery has challenged the imagination of industrial engineers for years because of the opportunity to save the cost of sacks and the labor of filling, handling, emptying, and disposing of them. Minor losses, such as occasional breakage and the loss of flour that sifts from bags in transit and that which clings to the bags when they are emptied, can be avoided.

Specialized railroad cars have been placed in service to haul flour in compartmented bins. Motortrucks also have been put in service for this purpose. Both have smooth, sanitary, interior surfaces as well as dirt-proof spout connections. The flour is unloaded, either by gravity or air pressure, into bins directly or placed in large steel containers, called "tote boxes," for stacking. Considerable capital outlay is involved in providing for the handling of flour in bulk and the savings must be considerable before installation of the system is profitable.

Much of the sugar used by food and beverage manufacturers now is shipped from refinery to factory in bulk. Methods of handling are similar to those for flour. Bulk shipments of raw sugar to refineries by rail and water are increasing.

Freezing Baked Goods

It is becoming commonplace for retail bakers in metropolitan centers to freeze a complete line of baked goods to preserve them for periods ranging from 24 hours to several days prior to display and sale. Freshly baked food items are allowed to cool to room temperatures and then are quick frozen at 0° F. or below in a way similar to other frozen foods. Unlike the latter, however, baked goods are allowed to return to room temperatures prior to sale. Since display is so important in the sale of baked goods, every effort is made to present them in as close to edible form as possible. This rules out offering the goods to the public in frozen condition. Moreover, many bakery items, including bread and rolls, have an unfavorable bulk-to-value ratio. Expensive refrigerated display space would have to be installed to store products carrying much less value per cubic foot than other frozen foods. This objection is carried over to the consumer's own frozen food storage space at home.

Several economic advantages are claimed for freezing baked goods. As freezing allows the storage of products in fresh condition, a 5-day production week can be meshed with a 6-day selling week. Second, overtime labor payments are said to be minimized. Third, it is claimed that freezing can reduce losses from staling. Lastly, more economic batches of specialty items can be made up and stored in the freezer with a consequent saving in changeover time.

Wholesale bakeries are interested in the possibility of freezing bakery goods. So far very few have attempted this but their efforts are being watched closely by the trade. In addition to the economies listed above, there is the added possibility of net savings resulting from long distance distribution of frozen baked goods out of a centrally located baking plant of considerable size.

Lighter and Cheaper Containers for Fruits and Vegetables

For packaging many food products, especially fresh fruits and vegetables, large, cumbersome, and expensive wood shipping containers have been replaced by smaller, lighter, and cheaper fiberboard containers. The substantial increase in the cost of the wood components of many types of wood and wood veneer containers since World War II has been one of the chief factors responsible for the shift to fiberboard for bulk packaging of many fruits and vegetables. Other factors accounting in part for this trend are increased labor costs for packing, wrapping, loading, and handling the commodities and increased freight and refrigeration charges. The fiberboard packages used for most commodities are generally smaller and considerably lighter than the wood packages they have replaced. This particular feature of the new containers has made them quite popular with retailers.

Substantial savings have been realized in handling many fruits and vegetables not only in the initial costs of the fiberboard packages as compared with the wood containers but also in the cost of container assembly, packing, closing, and transportation. In the changeover from wood to fiberboard packages for oranges and lemons, for example, individual wrapping and place-packing of the fruit has been eliminated in favor of the volume-fill, jumble pack, producing important savings in packing costs. As the fiberboard packages are lighter and make somewhat more compact loads than the wood containers, some economies have also been achieved in freight and refrigeration costs.

The introduction of fiberboard containers for some commodities, especially lettuce, followed the development of special methods of processing the commodities for shipment. Development of the vacuum-cooling method for removal of field heat from lettuce has made it possible to ship the commodity in dry containers without crushed ice in the packages or over the load. This has made feasible the packaging of the product in fiberboard for shipment. As most of the lettuce shipped from the important lettuce-growing areas in California and Arizona in fiberboard cartons is packed in the field instead of in packing sheds as it is when the wood crates are used, substantial savings in packing costs have been realized. Since the fiberboard cartons lend themselves to handling on pallets and conveyors more effectively than the wood crates, they have proved easier and less expensive to handle and load for shipment.

Data on the comparative quantities of various important perishable commodities currently being packaged in different types of containers are meager. Recent estimates, however, are that approximately 98 percent of the California lemon crop and about 80 percent of the California-Arizona lettuce shipments are now packaged in fiberboard cartons compared with about 10 percent for both commodities 2 years ago. A considerably smaller but constantly increasing proportion of the California and Florida fresh orange shipments is being marketed in fiberboard packages. Practically all the cranberries marketed domestically are now packaged in fiberboard and a considerable quantity of apples is also packaged in various types and sizes of cartons. Experiments are now under way looking toward the development of suitable fiberboard packages for plums and pears. Recent developments in packaging and marketing point to a continuation of the trend away from wood to fiberboard for packaging many of these commodities during the coming year.

Trend Toward Larger Scale of Operations

In some lines of agricultural marketing, a trend toward an increase in the scale of individual plants or establishments is evident. Average output per plant and sales per store have increased. To some extent, this increase has resulted from a fuller utilization of existing facilities. Also, the average has been increased by the closing of many smaller units. But some larger plants have been erected and the capacity of older plants has been enlarged. Expectations of reducing costs have induced many firms to concentrate operations in fewer plants and to build larger plants. This tendency is particularly noticeable in the marketing of dairy and poultry products, in the assembling of farm products, and in retail trade.

Greater Output by Plants Manufacturing Dairy Products

During recent years, the average output of plants manufacturing each of the principal manufactured dairy products has increased (table 6). The average production of American cheese per plant in 1953 was 198 percent greater than in 1939. During the same period, percentage increases in the average output per plant of other principal products were: Creamery butter, 44 percent; evaporated milk (case goods), 54 percent; ice cream (wholesale), 154 percent; and nonfat dry milk solids, 161 percent. Each of these products except nonfat dry milk solids was manufactured by fewer plants in 1953 than in 1939, although the total output of each product, except butter, was greater. Average plant capacity has been increased by the construction of larger plants, by the enlargement of old ones, by alterations in the size and type of equipment, and by the closing of many of the smaller plants, but it is likely that fuller utilization of capacity has accounted for much of the expansion in average output per plant.

The need to reduce costs by a fuller utilization of plant capacity and by economies of scale have encouraged the concentration of production in fewer plants. Large plants often have advantages over small plants which enable them to compete more effectively for the available supply of milk. For this reason, closings have been more frequent among small plants than large ones. Large plants can use machinery and other equipment which smaller plants cannot use efficiently. Costs of labor and other inputs

probably are smaller per unit of output for most large plants than for smaller ones. Among the other advantages that large plants often have are the facilities and skilled craftsmen needed for standardization and improvements of products and the efficient utilization of byproducts.

Table 6.- Number of plants producing manufactured dairy products, total production and average production per plant, United States, 1939 and 1951-53

Year	American cheese	Creamery butter	Evaporated milk (case goods)	Ice cream (wholesale)	Nonfat dry milk solids		
					Roller	Spray	Total
	Plants 1/						
	Number	Number	Number	Number	Number	Number	Number
1939	2,284	4,646	143	2/4,191	---	---	258
1951	1,592	2,879	120	3,179	241	221	426
1952	1,478	2,724	117	3,101	244	233	435
1953	1,459	2,566	109	3,128	248	255	447
	Total production						
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 gallons	1,000 pounds	1,000 pounds	1,000 pounds
1939	537,298	1,781,737	2,170,601	2/287,099	---	---	267,860
1951	873,458	1,202,981	2,896,386	516,957	156,089	546,387	702,476
1952	849,818	1,188,170	2,839,682	537,194	198,303	665,076	863,379
1953	1,021,492	1,411,814	2,553,751	548,583	241,417	971,578	1,212,995
	Average production per plant						
1939	235	383	15,179	2/ 69	---	---	1,038
1951	549	418	24,137	163	648	2,472	1,649
1952	575	436	24,271	173	813	2,854	1,985
1953	700	550	23,429	175	973	3,810	2,714

1/ Plants reporting production of specified product; totals for individual products cannot be added without duplication as some plants produce more than one of these products.

2/ Data for 1940 instead of 1939. Data comparable to those for later years were not available for 1939.

Larger output per plant became feasible when improvements in motortrucks and highways made hauling milk and cream from longer distances practicable. Fewer plants were needed when daily deliveries from farms 40 or 50 miles from the plant became common. But inertia, habit, and the desire to realize some return from investments in plants delayed the reduction in the number of plants until the war years when shortages of labor and other factors led to the closing of some plants. 7/

7/ For a more extensive discussion of the factors causing the decrease in number and increase in average output of dairy plants, see the Apr. 1953 issue of this Situation.

Larger Poultry and Egg Plants

Geographical specialization in the production of eggs and poultry and the increased output of these products have made large-scale, extensively equipped plants for processing these products economically practicable. During recent years the proportion of eggs and poultry coming from specialized producing areas has increased. Large commercial egg-producing areas have developed in the Northeastern, Middle Atlantic, and Pacific Coast States. Somewhat less specialized producing areas have developed in the North Central States, particularly in Iowa, Wisconsin, and Minnesota. Commercial broiler production, which has grown rapidly in recent years, is concentrated in 14 well defined producing areas, the largest of which are in Georgia, Delaware, Maryland, Virginia, Arkansas, Texas, and California. Specialized turkey producing areas are found in several States. Processing plants in these areas can obtain several times the quantity of eggs or poultry within a given hauling distance than can plants in less specialized areas. The volume available to plants in producing areas has grown because of increases in the proportion of poultry dressed at plants in the producing areas rather than being shipped live and of eggs candled and cartoned in the producing area rather than at the terminal market.

A large volume of poultry is needed for the efficient use of much of the specialized equipment in a modern processing plant. Plants with a large volume can afford specialized machines for removing feathers from different parts of a bird. For example, one machine removes the feathers from the legs and another removes feathers from the neck. However, manufacturers are now producing equipment which may prove highly efficient for the small plants. Eviscerating is done by hand in all plants but in a large plant a worker will perform only one or a few operations in the process. Time that would be lost in picking up and laying down tools is saved and specialization enables the worker to develop greater skill and speed. Also, in a large plant, the birds are brought to the worker by means of a conveyor.

A plant must handle a large volume of eggs to make installation of some of the modern egg-handling equipment profitable. This equipment greatly reduces the manpower necessary to size, sort, and package eggs. Recently electronic handling equipment has been introduced at one plant. This equipment is so expensive that to utilize it more fully two shifts a day are being worked at the plant. To obtain the volume of eggs needed, another plant operated by the firm was closed.

It is likely that the operating costs of these large plants generally are smaller per unit of product handled than those of smaller plants. Probably there are economies of scale in buying and selling as well as in processing, particularly where production is located some distance from consumption centers. Frequently these large plants are parts of integrated marketing enterprises, which buy from producers and sell to consumers or to retail stores, restaurants, or other quantity buyers.

Increase in the Volume of Cotton Ginned Per Plant

The average volume of cotton ginned per plant increased from 965 bales in the 1939-40 season to 2,272 in the 1953-54 season. This increase

was accounted for mainly by an increase in average capacity per active gin plant and possibly by a fuller utilization of the capacity of active plants. The number of gin plants active in the 1953-54 season was 7,141 compared with 11,885 in the 1939-40 season, even though the total volume of cotton ginned in 1953-54 was about 43 percent larger than in 1939-40.

Several reasons account for the decrease in the number of plants and the increase in the cotton ginned per plant. Under-utilization of capacity seems to have been widespread. Data relating to the capacity of gins and to the volume of ginnings during the 1945-46 season show that in 81 percent of the counties in the United States in which cotton was ginned, less than 50 percent of the estimated capacity was utilized even during the peak ginning period. 8/ Reductions can be obtained in the cost of ginning a bale of cotton by utilizing a gin plant more fully. Depreciation and overhead, particularly, are reduced and also labor and some other costs. 9/ These conditions provided an incentive for gin owners to attempt to obtain larger volumes of cotton. In some areas, particularly in the Southeast, the production of cotton has declined. Closings have been most numerous in those areas. A large proportion of the plants that closed were small. Much of the increase in the production of cotton in recent years has been in the West where most gins are relatively large.

Practically all gins package cotton into low density bales (11 to 15 pounds per cubic foot). These bales must go to a compress for repressing to standard density (about 24 pounds per cubic foot) prior to being transported any appreciable distance by rail. During the 1953-54 season, the Belt-wide charge for standard density compression averaged $1.35 per bale. Some years back a few gins installed heavier, more powerful presses capable of turning out bales of standard density thereby eliminating the need for and added cost of further compression except for bales moving into export trade. The volume of ginning at a gin plant must be relatively large to make installation of this equipment profitable. By the 1953-54 season, the number of gins operating standard density presses had increased to about 70 in number with practically all of these being located in the western irrigated region. The technological and economic feasibility of the use of the higher density compresses was demonstrated during the 1940's. Aside from some direct saving in marketing cost, it is said that the more symmetrical proportions of such bales facilitate physical handling and conserve storage space.

Fewer Cottonseed Oil Mills,
Larger Output

The domestic cottonseed crushing industry began after the Civil War. The first official count of mills, which was made in 1880, showed 45. The largest number ever reported was 885, in 1915. Then the total number decreased steadily to 500 in 1932 and to about 300 two decades later. During this 20-year period, the average crush per mill has increased more or less continually, fluctuating with the size of crop.

8/ L. D. Howell, Marketing and Manufacturing Services and Margins for Textiles, U. S. Dept. Agr. Tech. Bul. 1062, Sept. 1952, p. 31.
9/ See pp. 22 and 23 of reference cited in footnote 8.

Cottonseed Oil Mills

Crop year	Mills Number	Average crush per mill Tons	Oil outturn per ton Pounds
1915	885	6,500	---
1932	500	10,600	318
1952	303	18,000	328

Accompanying the trend toward fewer but larger mills has been a slight improvement in oil yield, with a compensating decrease in cake and meal. Better operation of mills, improved seed quality, better storage of seed, and change in type of mill all undoubtedly have contributed to this. In recent years, oil outturns have been considerably higher because of the shifts to more efficient extraction methods -- more chemical solvent and screw press operations and fewer hydraulic presses. In the past, cottonseed has been crushed primarily by hydraulic presses. While in the 1952-53 season this method remained the most important single process, that was the first year that hydraulic presses accounted for less than half of the total crush.

Larger Soybean Oil Mills

Significant changes have taken place in number and size of soybean oil mills. Available data on the number of soybean oil mills prior to World War II are somewhat fragmentary. From these data it may be seen, however, that the average size mill has increased.

Soybean Oil Mills

Crop year	Mills Number	Average crush per mill 1,000 bushels	Oil outturn per bushel Pounds
1941	75	1,028	9.16
1952	174	1,344	10.82

The industry expanded facilities rapidly after World War II in response to expanded acreage and production of soybeans and to relatively high prices for fats and oils. During this period, the number of soybean mills reached an all-time high. In more recent years, however, fats and oils prices have been far below their postwar highs and processors' margins have narrowed. Consequently, many of the less efficient mills -- hydraulic and screw press -- have been forced to curtail operations or to go out of business. In 1951-52, 193 mills crushed soybeans in the United States but only 174 mills in 1952-53. The hydraulic process was the first method used in crushing soybeans but in the early 1930's the more efficient screw press method became the principal process. The trend toward solvent extraction started more than 20 years ago but did not replace the screw press method as the leading process until 1949-50. In the 1952-53 season, the solvent extraction method accounted for 86 percent of the soybeans processed.

Oil outturn per bushel has increased primarily because of the continuing trend toward solvent extraction. Pound for pound, the oil is the most important product produced by the mills. The superior recovery rate of oil for solvent extraction mills has made it difficult for other types of mills to compete. In the 1952-53 season, solvent extraction processors recovered on the average 11.11 pounds of oil per bushel, or 2 pounds more than the screw press processors and 3 pounds more than the hydraulic processors.

Retail Food Stores Have Become Larger

Average sales per retail food store increased from approximately $61,000 in 1948 to $89,000 in 1953 (table 7). Some of this increase resulted from a rise in prices, but much of it reflected an increase in the quantity of goods sold. The increase in dollars of 1948 purchasing power was approximately 34 percent. Average dollar sales for grocery stores, which have about four-fifths of total food sales, increased from about $66,000 to nearly $94,000. The volume of goods sold was about one-third larger in 1953 than in 1948.

Table 7.- Number of grocery and other food stores and their volume of sales, 1948 and 1953

Type of store and ownership	Number of stores, Dec. 31		Volume of sales, Total		Volume of sales, Per store	
	1948	1953	1948	1953	1948	1953
	Number	Number	Million dollars	Million dollars	Dollars	Dollars
Grocery stores						
Chain 1/	22,550	17,432	8,532	12,404	378,359	711,565
Independent	355,389	340,904	16,238	21,219	45,691	62,243
Total	377,939	358,336	24,770	33,623	65,540	93,831
Other food stores	126,500	98,073	6,196	7,154	48,980	72,946
Total	504,439	456,409	30,966	40,777	61,387	89,343

1/ Units of an organization operating 11 or more stores.

Compiled from reports of the Bur. of the Census.

The number of food stores declined 10 percent between 1948 and 1953, continuing a trend that developed before 1948. Between 1939 and 1948, the number also declined 10 percent. The reduction was larger among specialty food stores (bakeries, meat and fish markets, and other stores having limited lines) than among grocery stores. The grocery-store classification includes the supermarkets. In the grocery group, chain stores (units of an organization operating 11 or more stores) decreased more than independents. Many chain organizations have been replacing small stores with fewer large stores.

Fewer stores are needed now that many more families shop by auto. A store can draw customers from a much wider area than formerly. Thus, the automobile has been responsible for a reduction in the number of retail food stores, as the truck has been responsible for a decrease in the number

of establishments assembling farm products. Customers have been attracted to large stores by their wide assortment of foods and other merchandise, by their parking lots, their comfortable and convenient display rooms, their parcel pickups, and other services. A large store can advertise and do other sales-promotion work that would be too expensive for a small store. Large stores probably have a quicker turnover of stock and larger sales per unit of floor space than do small stores. Perhaps many are able to obtain economies of scale in the use of labor and equipment. 10/

Chain grocery stores had about 37 percent of the total grocery-store sales in 1953, 36 percent in 1952, 34 percent in 1948, and 33 percent in 1939. The 12 largest chain-store companies in the United States, each of which had an annual sales total of more than 100 million dollars in 1952, had about 28 percent of the total grocery-store sales in 1952, and about 26 percent in 1939. The three largest had about one-fifth of the grocery-store sales in both 1952 and 1939. Thus, changes in the distribution of sales between chain and independent stores and among chain-store companies of different size groups have been small. Medium and small chains made a slight increase in their share of the total grocery-store sales at the expense of independent stores.

A further decrease in the number of retail-food stores seems probable. There are still many small stores, some of which are operated by chains which have had a policy of merging small stores. The shift of population to suburban areas has drawn away customers from many small stores. Small stores will continue where they serve customers who cannot easily reach a large store or are in areas which cannot support a large store. Often small stores draw customers who wish to buy only a few items because purchases can be made more quickly than in a larger store or can be made when larger stores are closed.

A large proportion of the independent stores now belong to retailer-owned cooperative wholesaling organizations or are affiliated with wholesaler-sponsored voluntary chain organizations. More of the wholesalers are assuming the buying functions of retailers and are helping the retailers through advertising and merchandising aids, store engineering services, accounting aids, and general store supervision. Wholesalers are adding new lines of merchandise, such as frozen foods, nonfood items, and in a few instances meat departments. These changes in wholesaler-retailer relations have been aimed at providing independent retail stores with advantages of integration, specialized management, and sales promotion possessed by chain-store organizations.

Changes in Methods of Buying Farm Products

More Farm Products Bought by Grade

Quality is one of the more important factors governing the price of farm products in terminal markets but some products generally are not bought from farmers on the basis of grades which reflect quality differences. However, buying by grade has become more common in recent years for several products.

10/ For a discussion of the increase in the number and sales of supermarkets, see the Dec. 1951 issue of this Situation.

Cotton.- Marketing of cotton by farmers on the basis of quality has become a much more common practice in recent years. This was made possible by the establishment and expansion of free classification and market news services to growers by the Department of Agriculture in response to a recognized need to improve farmer markets for cotton.

Information assembled during the 1930's showed that much of the cotton was sold by growers on an ungraded basis, with little or no differences in prices on the basis of the quality of individual bales. The bargaining power of growers, particularly of those who produced the higher quality cotton, was poor because of lack of dependable information as to the quality and value of individual bales at the time the cotton was sold.

Free classification and market news services to cotton growers were initiated during the late 1930's. These services were expanded in response to the demands of cotton growers so that by the 1953-54 season more than three-fourths of the crop was classed for growers by the Department and a large proportion of the cotton was sold on the basis of quality.

Eggs.- In recent years an increasing proportion of the production of eggs has been sold by producers on a graded basis. This method of marketing involves the determination of the distribution of eggs by size and by external and internal quality. Payment is in proportion to the amount and value of each size and grade of egg marketed. The practice of marketing eggs on a graded basis is used to permit a more accurate evaluation of the eggs purchased and to encourage the production of better quality eggs. Candling is usually included in the grading process in the Midwest and West but it is usually omitted in buying eggs from farmers in the East.

The practice of buying eggs on a graded basis is particularly prevalent in areas of concentrated production. It is practiced by the larger egg buying firms and particularly by chain-store organizations or firms which supply them with eggs. It is used when the eggs are to be marketed in shell form directly to consumers and where the conservation of quality is of the greatest importance. Because the production of eggs is shifting from the general purpose farm flock to commercial egg producing flocks, the marketing of eggs on a graded basis probably will increase in importance. This trend will be accentuated as more and more States enact egg grading laws and as the practice of candling and cartoning in producing areas grows more prevalent. Marketing on an ungraded basis remains important in areas where farm flocks predominate.

Livestock.- Livestock have not generally been sold by grade in the United States. This does not mean, however, that differences in quality are not taken into account in arriving at the selling price. Cattle buyers estimate value by estimating the carcass grade of the animal and the carcass yield, that is, the percentage of the live weight which the carcass comprises. The carcass price for the particular grade is multiplied by carcass yield to determine the price per 100 pounds live weight. Carcass grades are usually estimated in buying veal calves and lambs, though pricing is less accurate than for cattle since differences in yield are seldom given consideration in appraising their value. In buying hogs, however, little consideration has been given to differences in quality. Within the same weight range, butcher hogs usually sell at about the same price regardless of grade.

Some beginnings have been made in the last few years which may indicate a trend to greater use of grading in livestock buying. Some marketing cooperatives have been sorting the meatier, superior hogs delivered to them by farmers and selling them at a 50-to-75 cent premium per 100 pounds over the going market price. At other markets in the Middle West, hogs are occasionally sorted by grade and sold on that basis. One rather large packer in the Corn Belt is offering farmers the option of selling their hogs by carcass weight and grade. Occasionally sales of cattle by the carcass weight and grade system are being made in all parts of the country, although these sales are perhaps most common in the extreme southeast and southwest areas.

Research to Improve Grades and Standards

Research to make possible rapid objective measurement of quality factors by new methods and devices is being conducted by the Agricultural Marketing Service. This work is directly applicable to the grading, standardization, and other evaluation programs of the AMS. Nearly all agricultural commodities are being investigated, including fruits, vegetables, grains, seeds, poultry, eggs, and livestock, as is indicated by the following selected examples. An electronic device has been developed that will detect "green rot" in eggs and automatically separate such poor quality eggs from normal ones. Other new photoelectric devices segregate eggs on the basis of color and detect the presence of blood spots. Promising results are being obtained in the application of radio-frequency (dielectric) energy for the determination of moisture in grains. The dielectric principle has successfully been extended to the problem of drying rough rice. A simple fat acidity test now being developed appears to be a superior index for quality of grain. A simple sedimentation test is being evaluated as an objective measure of the baking quality of wheat. The relationship between the grade of raw and processed fruits and vegetables is being studied by objective test involving photoelectric colorimeters and standardized viewing lamps. These studies, as yet confined to tomatoes, sweet corn, sour cherries, and peas, have progressed far enough to indicate that they may provide a basis for improvement of existing grades and standards. Poultry and egg processing methods are being thoroughly investigated to discover sources of bacterial contamination and other factors affecting quality of product. Methods for evaluating livestock in relation to carcass composition are also being studied.

Changes in Milk Pricing Practices

The continuing large surpluses of milk have increased the emphasis on seasonal pricing plans, especially the base-surplus plan. This plan is designed to encourage more stable milk production by giving producers who market a uniform quantity a greater return per 100 pounds during the surplus season than the producer whose marketings vary seasonally. This type of pricing was widely used during the 1930's, but it was abandoned in nearly all markets during World War II. Following the War, the emphasis was on seasonal patterns for the prices paid by milk distributors, and then on the fall premium, or take-off and pay-back plan. Under the fall premium plan deductions made from the price during the surplus season are held in reserve to be added to the price paid to producers during the deficit season in the fall. As seasonal surpluses have been aggravated by overall surpluses, the

base-surplus plan has been coming back. It was adopted in the Chicago market in 1954 and recommended for the New York market by a milkshed committee.

The difficulties in marketing butter in recent years and a widespread conviction in the dairy industry that greater emphasis should be placed on the nonfat portion of milk has led to considerable interest in pricing plans that will reflect the market value of both the butterfat and nonfat portions of milk. The percentage of nonfat solids is normally higher in high butterfat milk, so that there may be added to the butterfat differential an allowance for the value of the nonfat solids associated with the additional butterfat. This pricing principle is being quite widely accepted. In less than 15 years, over one-half of the plants in Wisconsin have adopted the Froker-Hardin plan which is based upon it. Refinements in this pricing method will depend upon results of current research to develop low-cost, quick, and accurate methods for ascertaining the quantity of nonfat solids as well as the quantity of butterfat delivered by individual producers.

Changes in Methods of Selling Farm Products

More Food Sold in Frozen Form

The increased selling of foods in frozen form has been one of the important developments in the marketing of farm products in recent years. During the last 7 years, the output of frozen foods has more than tripled and the limits of this expansion have not been reached. The significance of the increasing proportion of various products being marketed in frozen form is often overlooked because of the usual practice of combining all foods whether they can be frozen or not when measuring the relative importance of frozen foods. To appraise the effect which the increased use of frozen foods may have on the sale of the corresponding fresh and canned items, it appears more meaningful to compare the consumption in fresh, frozen, and canned form for only those products for which the freezing process has proved a success.

Among the vegetables, asparagus, lima beans, snap beans, broccoli, corn, peas, and spinach are being frozen successfully. One-fifth of the consumption of these seven vegetables was in frozen form during 1953 compared with 34 percent in canned form and 45 percent in fresh form (fig. 5). In 1946 only 8 percent was consumed in frozen form, 40 percent in canned form, and 52 percent in fresh form. Both the proportionate and the absolute quantities of these vegetables sold in frozen form almost tripled between 1946 and 1953. The consumption of these vegetables in fresh form declined slightly in recent years while consumption in canned form was maintained. Total consumption of the seven vegetables increased from 5.1 billion pounds (fresh equivalent basis) in 1946 to about 5.4 billion pounds in 1953. This increase in total consumption was more than accounted for by the increased use of frozen vegetables. The increase in total vegetable consumption paralleled the population growth as is shown by the fact that the per capita consumption of these seven vegetables remained near 33 pounds per person during the 8-year period from 1946 to 1953.

Thirty-six percent of the consumption of oranges during 1953 was in frozen form (fig. 6). In 1948, only 1 percent was consumed in frozen

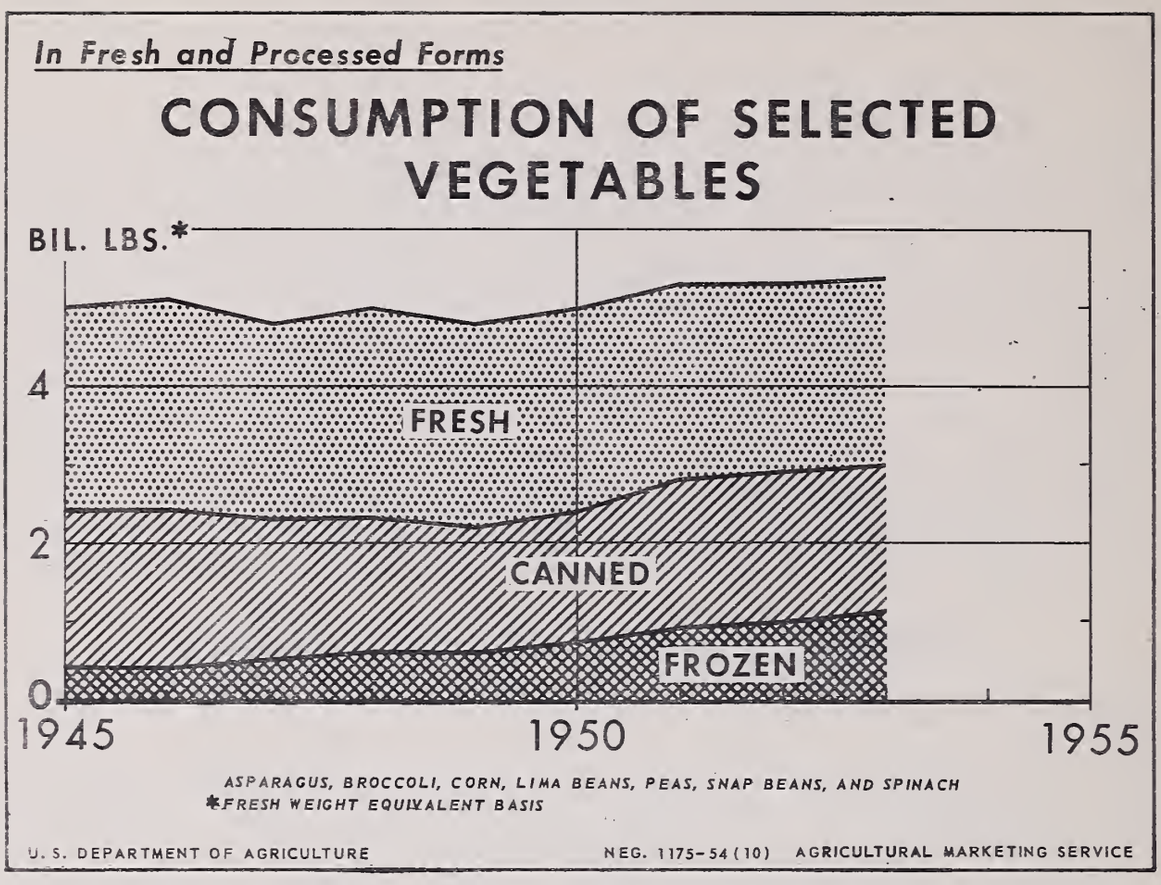


Figure 5

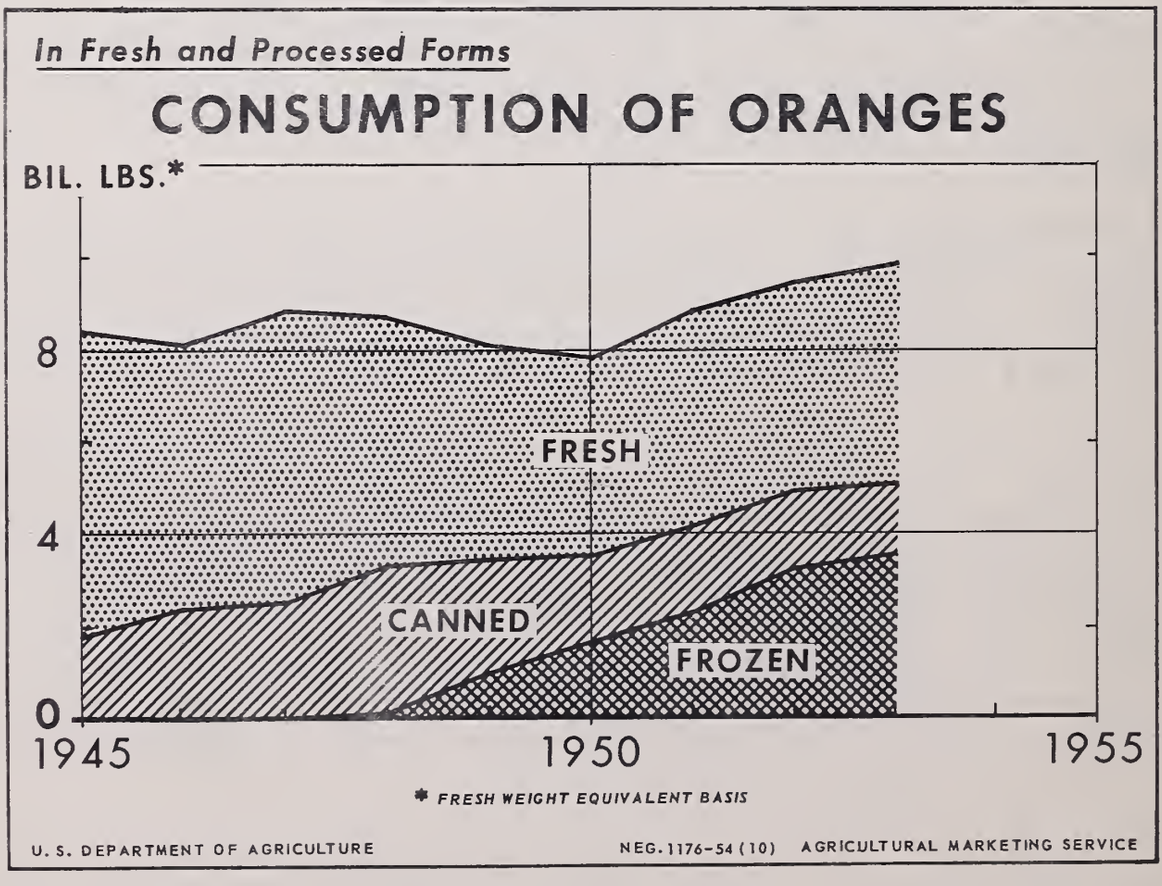


Figure 6

form. About 21 percent of the lemon consumption during 1953 was in frozen form. In 1950, less than 1 percent was consumed in frozen form. This year's pack together with out-of-storage movements to date indicate that the consumption of oranges and lemons in frozen form will be higher in 1954 than 1953.

The consumption of deciduous fruits in frozen form has stayed at about the 5-percent level during the last 7 or 8 years. It does not appear that this relationship will change greatly in the immediate future.

Approximately 50 percent of the strawberry crop was consumed in frozen form in 1953. This represents a threefold increase since 1946. The prospects are that some additional increase may be expected.

According to trade reports, 470 million pounds of poultry and 170 million pounds of meats were frozen in 1953 as compared with 130 million pounds and 15 million pounds, respectively, in 1947. An increase in the use of frozen poultry and meats may be expected. Frozen prepared foods, such as frozen fish sticks, chicken and beef pot pies, waffles, and complete dinners are definitely on the increase. It has been estimated that 300 million pounds of prepared foods were consumed in 1953. Prepared foods representing convenience items may be the area where the greatest increase in frozen food consumption will take place in the next few years.

When frozen foods represent quality and convenience items, it is a safe assumption that their usage will continue to increase.

Prepackaging of Foods and Self-Service Retailing

One of the significant developments in the marketing of food products in recent years is the impressive growth of prepackaging, the demand for which has been strengthened by the increase in self service in retail food stores.

Fruits and Vegetables.- Prepackaging has proved in most instances to be an effective tool in cutting costs of handling fresh fruits and vegetables in retail stores and in reducing spoilage losses. Although the initial cost of packaging many fresh fruits and vegetables in this manner is greater than preparing them for bulk displays, it is outweighed by the convenience and savings offered at the retail level by prepackaging.

Some produce items are prepackaged at destination markets while others are prepackaged at the shipping point. The point at which prepackaging takes place depends upon a number of factors, including the amount of special processing (washing, ripening, and grading) required, the length of the shipping season in a given area, the type of packages and special equipment required, and the nature of the commodity itself. Included among the commodities prepackaged almost entirely at terminal markets are tomatoes, spinach, kale, topped radishes, grapes, and lettuce. Apples, cherries, cranberries, corn, plums, limes, potatoes, onions, carrots, oranges, and grapefruit are prepacked predominantly at or near the point of production.

Meats.- In just 6 years, self-service selling of meats in retail food stores has passed from an experimental stage to an established method of merchandising. According to trade reports, only 178 stores had self-service meat departments in 1948. By 1954, there were 9,500 and the number is expected to continue to grow.

Partial self service of meats also has grown rapidly. The practice of selling smoked meats, luncheon meats, and sausage on a self-service basis has become so common that it is found in all types and sizes of stores.

The development of complete self-service meat departments has been confined mainly to the larger supermarkets, with operators of smaller volume stores adapting partial self-service meats to their operations. Of the 9,500 stores with self-service meat departments, 5,750 were reported to be chain stores and 3,750 independents. The self-service method of merchandising is particularly suited to large volume operations where the greatest economies can be realized from the division of labor.

The most important factor in the development of self-service meats has been its appeal to consumers who have enjoyed serving themselves from well-arranged displays of grocery and produce items. It seems likely they will continue to expect meat departments to do as much to make their shopping for meats pleasant.

Centralized prepackaging of fresh, red meats has not been developed successfully yet, but has great potentialities. Its development would greatly facilitate the growth of self-service selling of meats in retail stores, particularly those of small volume. Centralized prepackaging of smoked meats, luncheon meats, and poultry continues to grow in importance.

Prepackaging of frozen meats has continued to increase. In recent years, frozen meat specialty items have gained steadily in consumer acceptance. According to trade reports, only 20 plants engaged in the preparation of frozen meats in 1948. Today there are 153. Several chains are merchandising complete lines of frozen red meats on a trial basis. If either centralized prepackaging of fresh red meats or the sale of frozen meats has real merit, many of the problems in meat distribution will be solved.

Changes in Retailing Milk

A larger proportion of fluid milk and cream products is being sold through retail stores than ever before. Buying milk in retail stores has been made more convenient for consumers by selling it in paper containers.

Quantity discounts amounting to 1/2 cent or more per quart are now used in many fluid milk markets, including some of the largest. Volume discounts may be granted to individual consumers in two general ways. The price per quart may be reduced for additional quarts purchased above a certain minimum per delivery or per month on milk delivered to homes or the price per quart of milk in gallon or half-gallon containers sold in stores or delivered to homes may be less than the price for single quarts.

There is a tendency for dealers to expand and diversify their line of fluid milk and cream products in an effort to cater to diverse customer wants nd to expand sales. Sales of low-fat products such as buttermilk, flavored milk drinks, and skim milk expanded rapidly following World War II. But for the first 6 months of 1954, the increase in 45 Federal order markets was only a little more than 3 percent above the same period in 1953. This is less than half what it has been for several years past.

Extension of Marketing Areas for Fluid Milk.- One of the notable developments in fluid milk distribution in recent years has been the increasing distance to which milk is distributed from the larger plants. It is likely that this practice will continue to grow for some time in the future. The principal factor in its development has been the use of paper containers, which make possible more efficient use of transportation equipment and make distance a less important element of distribution cost. Until recently, equipment for packaging milk in paper has been available only in large sizes. This caused distributors to seek increased volume in order to attain reasonably low unit costs and to extend the area over which they operate. Large distributors are reaching out into many areas formerly served almost exclusively by small distributors. Consumers in these areas are finding milk more widely available, particularly pasteurized milk. But the smaller distributors are facing difficult adjustments to the resulting price and quality competition.

The expansion of distribution areas is bringing pressure on local health regulations which have tended to interfere with the longer distance movement of packaged milk. Long-distance movement of bulk milk, on the other hand, is likely to continue relatively unimportant as long as the production of milk in urban milksheds continues to exceed current consumption generally.

Sales Through Vending Machines.- The distribution of fluid milk and skim milk products through vending machines is widespread and is increasing rapidly. The industry estimates that a 25-percent increase in milk vendors will occur in 1954.

According to Milk Plant Monthly, material available to the National Automatic Merchandising Association indicates that about 12,000 milk vending machines and 14,000 ice cream vending machines were in use in the first half of 1954. 11/ There are trade estimates that sales of milk, chocolate drink, buttermilk, and other products sold through milk vending machines amounted to 17 million dollars in 1953. Homogenized milk and chocolate drink are the products most widely vended. Preferences for various kinds of milk vary from location to location. About three-fourths of the packages sold are half-pints or third-quarts. Both glass and paper containers are used. Prices at vending machines vary considerably -- from 5 cents to 10 cents for half-pints, 9 cents to 12 cents for third-quarts, and 12 cents to 18 cents for pints.

11/ Milk Plant Monthly, Vol. XLIII, No. 7, July 1954, pp. 11-12.

Outdoor automatic vending machines, dispensing quarts and half-gallons are coming into use. These machines are placed at apartment houses, filling stations, and garages. They cater chiefly to the "emergency" and after-hours trade.

Ice cream vending machines have tripled in number since 1950, according to the National Automatic Merchandising Association. They handle chiefly ice cream bars. Trials are being conducted on ice cream machines handling pint and quart packages. According to trade estimates, sales of ice cream through vending machines amounted to about 15 million dollars in 1953.

Vending machines bring fresh, cold, ready-to-drink milk to consumers at locations that cannot be serviced readily through the existing wholesale and retail methods of distribution. When vending machines serve consumers where other sources of supply are not convenient, the consumption of milk generally is increased. This is shown by studies of sales through vending machines located in high schools, college dormitories, factories, and offices. Studies indicate that vending machines located at places where fresh cold milk is sold over the counter, such as cafeterias, may partially supplant over-the-counter sales but also may increase total sales. As yet the effect on home deliveries and wholesale deliveries of milk has not been adequately measured on a marketwide basis.

Research and experience show that the profitable vending of milk through machines primarily depends on careful selection of locations. The number of people frequenting the location, the hours they can use the machine, their incomes and occupations, and their opportunities to buy other beverages affect the success of a location.

Bulk milk dispensing machines are being accepted by many city health departments and in these cities are coming into wide use by drugstores, restaurants, and cafeterias.

Research to Expand Domestic Markets

Systematic research efforts are being made in the Agricultural Marketing Service to aid in maintenance and expansion of domestic markets for farm products in abundant supply. This research takes several forms. Market surveys are undertaken to discover underlying factors for household and industrial consumers' uses of and likes and dislikes for various products. Natural fibers -- cotton and wool -- are meeting increased competition from manmade fibers. Studies have been made, or are in progress, of women's preferences for fibers in clothing and household textile items, men's preferences for fibers in suits and jackets, and uses and preferences for fibers and fabrics in the automobile industry, the canvas and awning industry, and in the manufacture of insulated wire and cable. This information is designed to aid laboratory research men and processors in developing chemically modified natural fibers and new types of finishes and materials to meet competition from the synthetics. It also is of assistance to the textile industry in planning production and promotional programs.

The citrus industry is undergoing radical changes both in production and pattern of product uses. The upward trend in use of frozen concentrated orange juice has been accompanied by a downward trend in sales of canned single-strength juices, the quality of which is uneven. Studies are being made of consumer preferences for canned orange juice and canned grapefruit

juice varying in sweet-sour ratio (brix-acid) to indicate changes that might be made by processors to bring about increased market acceptance of the canned juices.

Wheat consumption has been declining on a per capita basis. A preference survey for commercial type breads varying in sugar, fat, milk, and specific volume (density) has been made in a midwestern city. Results indicate that consumers in that city at least prefer "richer" breads than those usually sold. If confirmed by further research, the implications to the bakery industry for increasing sales and consumption of bread are apparent.

Through product development research, market potentials are measured for new products in early stages of laboratory experimentation to determine the need for further research and for established products to delineate areas, both by family and geographical characteristics, for possible sales expansion. Thoroughgoing market tests are made of new products that have passed the laboratory stage but are still relatively untried on a commercial basis. At present, such a test is being conducted for canned frozen grapefruit segments in a representative northeastern city in cooperation with the citrus industry and processors.

Research in methods of merchandising agricultural products provides an additional means of increasing the flow of farm products in large supply to domestic consumers. An important phase of this is the measurement on a periodic basis of the actual rate of flow of products to households. This is being done currently for citrus products and certain dairy products on the basis of reports from a national panel of household consumers. Another phase is the testing in retail stores of alternative ways to package, price, label, and display farm products to promote sales. The sale of milk through vending machines is receiving increased attention and a study is under way in selected communities to determine the net effect on total sales resulting from the introduction of such machines.

Research is being expanded to determine typical consumer responses at different levels of consumer income to changes in income and price, by commodities. Such research is basic to the evaluation of various proposals being made in the Congress and elsewhere for disposal of agricultural surpluses in the domestic market.

Two comments may be made on the effectiveness of market development research. First, it should not be anticipated that such research will end agricultural surpluses overnight. Rather, research results as they become available provide a sounder basis for policy decisions by Government agencies and commercial firms with respect to marketing programs for products in large supply than is possible without the research findings. Second, market development research is not designed to increase the total consumption of farm products (except to the extent that underconsuming elements may be reached) but instead to aid producers and marketing firms in channeling sales and consumption towards those products in most abundant supply. This might be considered to be a consumption adjustment objective analogous and complementary to the objective of and production adjustment programs.

Maintaining the Quality of Farm Products

For many farm products the average length of time between sale by the farmer and purchase by the consumer has been lengthened because of greater shipping distances or longer periods of storage. This has increased the need for measures to maintain the quality of these products during the marketing process.

Improved Facilities and Methods for Handling Perishable Foods

Research to reduce losses in transit and to improve the quality of fresh food received at the market is being conducted by public and private agencies. This type of research is being expanded by the United States Department of Agriculture. Tests with watermelons are demonstrating that there is less bruising and breakage when melons are loaded crosswise in the car than when loaded lengthwise. The new load is being adopted commercially. Research on the effect of film packages and cartons and loading patterns on transit refrigeration of carrots, dates, cranberries, citrus and other fruits and other vegetables are showing that packaging interferes with cooling. This research indicates the need for precooling before packaging and loading, open load patterns to permit better circulation of air in transit, and ventilated packages. Studies of fall shipments of tomatoes from California are showing the advantages of only moderate refrigeration to avoid chilling injury and subsequent decay and delayed ripening. Icing schedules based on loading temperatures of the tomatoes and anticipated outside temperatures are being tested commercially. These schedules have reduced the time in ripening rooms and spoilage and have resulted in increased sales. Recent tests with modified refrigeration have shown that Bartlett pears can be partly ripened in transit and ready for consumption soon after unloading. Tests are being made with fungicidal treatments applied in the packing houses or in the cars to reduce decay in transit. Heater and loading tests are being made with winter shipments of potatoes to determine preheating requirements and to evaluate floor pads and paper lining for insulation and prevention of bruising and loading methods for consumer packages.

Prevention of Insect Damage to Farm Products During Marketing

The ever growing supply of raw food products being placed in reserve storage has increased the demand for prevention of economic losses caused by insects. Changes in marketing practices and the demand of the public for insect-free dry food materials have increased the need of processors, warehousemen, and retailers for improved procedures to prevent insect infestation. Research to improve methods of preventing insect attack on agricultural products in storage, processing, and distribution channels is being increased. The possibility of harmful insecticidal residues occurring through the misuse of new and powerful insecticides has been a disturbing problem. A typical research accomplishment has been the development of a procedure to fumigate individual retail packages of dry beans or cowpeas on the packaging line by automatically dropping a minute amount of fumigant in the filled package just as it is sealed. This procedure is adaptable to the treatment of many other types of packaged foods.

Recent Developments in Transportation

"Piggy-Back" or Trailer-on-Flat-Car Service

A transportation development which has recently caught the imagination of the transportation industry is "piggy-back" service or "trailer-on-flat-car (TOFC) service." This is a combination truck-rail freight movement. Fully loaded truck trailers are placed on railroad flatcars and hauled between major rail terminals. Upon arrival at the destination terminal, the trailers are pulled by tractors to the receivers' establishments. It is claimed this service has not only speeded up the overall delivery time of the railroads but, in some instances, is even faster than truck hauled service. It is further claimed that TOFC service has reduced loss and damage in transit. This reduction has been reflected in some cases in lower insurance rates for TOFC shipments than for similar truck hauled shipments. Products derived from farm products are hauled by TOFC service, and its adaptation to the movement of farm products, particularly perishables, appears feasible.

Although piggy-back service has only recently received wide attention, it is not a new development. The Chicago, North Shore and Milwaukee Railroad began trailer-on-flat-car service in 1926 between Chicago and Milwaukee. The service was established to handle less-than-carload freight in trailers owned by the railroad. Generally known as the Ferry Truck Service, it remained in operation until 1947, when it was discontinued. During the 1930's and 1940's, several other railroads adopted TOFC service with various degrees of success. With one or two exceptions, these railroads were unable to expand their piggy-back operation because of insufficient traffic, including the lack of return loads. The low volume of traffic stemmed largely from inadequacy of service. The recent revival of interest in TOFC on the part of the railroads is undoubtedly an attempt to recover part of the substantial volume of traffic which has shifted from railroads to trucks.

Approximately 20 railroads, including 3 Canadian railroads, are now offering or have announced plans for offering trailer-on-flat-car service. In the past 6 months, 13 rail carriers have announced their intentions to initiate TOFC service. Major metropolitan centers such as Boston, Providence, New York, Philadelphia, Baltimore, Pittsburgh, Kansas City, and Chicago are now being served by one or more railroads with piggy-back freight service. While it is too early to predict the success of these ventures, one of the eastern railroads which has provided the service for approximately 15 years hauled over 50,000 trailers of motor common carriers in 1953.

The TOFC service now being offered is confined almost exclusively to freight-laden trailers owned either by the railroads or by motor common carriers. Nearly all of the railroads initiating TOFC service during the current year have restricted its use to their own trucking equipment. Two will haul the trailers of motor common carriers. In addition, some of the other railroads are contemplating the extension of their service to motor common carriers once sufficient experience has been gained in the TOFC operation. Some expansion in the TOFC service through hauling trailers of private carriers and of freight forwarders is also to be expected as a result of the Interstate Commerce Commission's decision of July 30, 1954, authorizing TOFC service for these particular types of traffic among others (p. 42).

While the method of charging for trailer-on-flat-car service varies to some extent among the different rail carriers depending upon the completeness of the service and the type of customer served, generally it takes the following form:

1. The charges for the movement of freight in trailers owned by the railroad concerned is governed by class and commodity tariffs issued by the rail carrier. These tariffs, patterned after motor common carrier tariffs, publish specific class and commodity rates in cents per 100 pounds subject to specified minimum weights. In some cases these rail rates are the minimum rates published in the motor common carrier tariff.

2. Motor carriers whose trailers are hauled by railroads, publish class and commodity tariffs in which they reserve the right to substitute TOFC service for regular over-the-road service. The railroad providing the TOFC service collects a fixed charge per trailer from the motor carrier. This charge is scaled upward as length of trailer and specified maximum weights are increased.

3. A similar although somewhat higher charge is made by railroads for hauling the trailers of private shippers or carriers. Charges for hauling between named points, irrespective of the commodity hauled are published in an open tariff.

The rapid development of piggy-back service is viewed with mixed feelings by both the railroad and trucking industries. The feeling in the railroad industry runs from cautious optimism to enthusiasm. In contrast, some of the trucking groups view this rapid expansion with alarm. Their concern is due primarily to the fact that approximately 70 percent of the railroads which are now carrying or planning to carry trailers-on-flat-cars are limiting this service to their own trailers. If successful, such service would reduce the traffic of motor common carriers.

Many problems have arisen in connection with TOFC service which have required interpretation by regulatory authorities. On September 30, 1953, the New Haven Railroad petitioned the ICC for consideration of a series of questions concerning the legal relations, limitations, and obligations of carriers participating in TOFC service. On July 30, 1954, the ICC made a determination of these fundamental issues, of which the farthest reaching are the following: 12/

1. That a railroad may transport its own freight, i.e., freight tendered it by shippers for movement by railroad, on railroad bills of lading, and at railroad rates, in its own trailers on flatcars, without holding any authority from the Commission under Part II (the motor carrier portion) of the Interstate Commerce Act.

2. That where a railroad transports its own freight in trailers on flatcars, the motor operation of the trailers in pickup and delivery service at the termini of the rail movement is subject to regulation by the Commission under Part I of the Interstate Commerce Act (that portion pertaining to railroads) and thus is exempt from Part II.

12/ ICC Docket No. 31375, Movement of Highway Trailers by Rail, July 30, 1954.

An additional issue before the Commission involving TOFC service is one concerned with the lawfulness of rates published by six eastern railroads. Hearings which were held on July 27-29 were recessed until October 12 following a stipulation that the railroads furnish movement information and cost data on their trailer-on-flat-car service.

"Sea Land" Service

In addition to the piggy-back on land operation, shippers and carriers are watching with considerable interest a recently proposed operation involving a joint ship-trailer service. The McLean Trucking Company, a large Atlantic seaboard motor common carrier of Winston-Salem, North Carolina, has petitioned the Interstate Commerce Commission for permission to establish a Sea-Land shipping service between North Atlantic and South Atlantic ports.

Joint water-land trailer service is not new to the United States. For several years loaded trailers or tractor-trailers have been hauled on barges or conventional type cargo vessels on inland waterways and in the Seattle-Alaska coastwise service. But the use of specially designed trailer-transport vessels as contemplated by the McLean Trucking Company is unique.

The company plans to initiate the service with 4 of these large trailer-transport ships. Each vessel will be capable of carrying a maximum of 285 truck trailers. The complete loading and unloading cycle is estimated at 4 hours per ship.

Six northbound sailings per week will be made from Wilmington or Southport, N. C., three will be made to New York City, and three to Providence. In addition, weekly sailings will be made from Wilmington to at least two and possibly all three of the following additional South Atlantic ports: Charleston, S. C., Savannah, Ga., and Jacksonville, Fla. The service will also be extended to Norfolk, Baltimore, and Philadelphia if the demands of the traffic warrant it.

The expected overall sailing time, including loading and unloading, between the several ports is as follows:

Origin	Destination	Time Hours
Wilmington, N. C.	New York, N. Y.	34
Wilmington, N. C.	Providence, R. I.	38
Wilmington, N. C.	Charleston, S. C.	12
Wilmington, N. C.	Savannah, Ga.	16
Wilmington, N. C.	Jacksonville, Fla.	21

The Sea-Land service will be available to motor carriers (common, contract, and private), who would supply their own trailers. The Sea-Land carrier also will provide trailers to shippers having no trailers in which to stow their own freight.

Charges for the Sea-Land service will vary with weight, distance, and type of freight. Motor carriers will be able to participate in the handling of Sea-Land traffic by joining in the establishment of joint-through rates with the Sea-Land carrier. Producers of agricultural products and others

who now provide all or a part of their own land transportation will be able to tender their shipments to the Sea-Land carrier at the port for handling on port-to-port rates. It is expected that a deduction from the basic charge will be given to shippers and carriers who furnish their own trailers for movement aboard the Sea-Land ships. The level of the rates and charges of the Sea-Land carrier for its port-to-port service, and for its service on joint-through rates with land carriers in coordinated land-water service, will be somewhat lower than the rates and charges presently applicable by land carriers because of the lower cost and somewhat slower service of the Sea-Land operation.

An official of the McLean Trucking Company has stated that he expects costs on much of the freight will be reduced from 2-1/2 cents per ton-mile (present trucking costs) to 1/2 cent per ton-mile when shipped via Sea-Land service. Part of this reduction in costs is presumably due to the fact that Sea-Land service will make it possible for trucks to bypass Virginia and Pennsylvania -- the two States on the Atlantic seaboard with the lowest maximum gross weight allowances for motor carriers. Low maximum gross weight allowances mean smaller payloads and higher per ton-mile costs.

Extensive hearings have been held during the past few months on the proposed Sea-Land service. Ship construction is scheduled to begin immediately upon the Commission's authorization of the Sea-Land service. Approximately a year will be required to construct the ships and place them in operation.

The United States Department of Agriculture has testified that the inauguration of the Sea-Land service would be of material benefit to producers of agricultural products in the Southeastern and North Atlantic States.

Fifty Billion Dollar Road-Building Program Suggested by the President

A 50 billion dollar highway improvement program extending over a 10-year period was proposed by President Eisenhower on July 12, 1954, in a message to the State Governors Conference. The program was described as making "a good start" on a highway network designed to answer the needs for a country of 200 million people. This sum would be in addition to current expenditures being made for highway improvement. 13/

Major requirements for the plan were outlined as follows:

1. A grand plan for a properly articulated system that solves the problems of speedy, safe, transcontinental travel, intercity communication, access highways, and farm-to-market movement, metropolitan area congestion, bottlenecks, and parking.

2. A financing proposal based on self-liquidation of each project, wherever possible, through tolls or the assured increase in gas tax revenue and on Federal help where the national interest demands it.

13/ It has been previously pointed out in this Situation that the largest annual authorizations ever made for Federal aid to highway systems were contained in the Federal-Aid Highway Act of 1954 (Public Law 350), which was approved on May 6, 1954. The authorizations total 966 million dollars for the 2-year period beginning July 1, 1955. For further details see The Marketing and Transportation Situation, May 13, 1954, pp. 12 and 13.

3. A cooperative alliance between the Federal Government and the States so that each local government will be the manager of its own area.

4. A program initiated by the Federal Government, with State cooperation for the planning and construction of a modern State highway system, with the Federal Government function being to advance funds or guarantee the obligations of localities or States which undertake to construct new or modernize existing highways.

As a first step in getting the highway program under way, the President appointed a special advisory committee to seek a solution of State-Federal highway problems. The committee is expected to study such problems as gasoline taxation and financing within the States.

Recent Legislation Affecting Transportation

The St. Lawrence Seaway.- The most significant transportation legislation passed during the 2d Session of the 83d Congress was Public Law 358 that provided for the participation of the United States with Canada in the construction of the St. Lawrence Seaway. Passage of this Act which climaxed a 30-year effort, is of concern to agriculture because of the impact it may have on transportation costs and services.

The Act provided for the creation of the St. Lawrence Seaway Development Corporation to construct part of the St. Lawrence Seaway in United States territory. It authorizes the Corporation (a) to make certain arrangements with the St. Lawrence Seaway Authority of Canada relative to construction and operation of the seaway, (b) to finance the United States share of the seaway cost on a self-liquidating basis, (c) to establish cooperation with Canada in the control and operation of the St. Lawrence Seaway, and to negotiate with Canada for an agreement on tolls.

Of particular interest to agriculture is the provision that charges or tolls shall be fair and equitable and shall give due consideration to encouragement of increased utilization of the navigation facilities and to the special character of bulk agricultural, mineral, and other raw materials.

Initial excavation contracts for the seaway will be solicited November 1, 1954. It is expected that construction will be well under way by the spring of 1955 with completion of the seaway scheduled for the spring of 1959.

The Maritime Industry.- Several bills dealing with the maritime industry were passed by Congress in 1954 and approved by the President. These Acts were primarily designed to encourage the maintenance of a sound merchant marine by providing funds to aid in the construction and repair of ships and by other means. One of these Acts provides that at least 50 percent of the gross tonnage of goods purchased by foreign nations must be carried in United States vessels where such purchases originated as a result of the advancement of funds or credits by the United States Government. Goods purchased for the account of the United States Government or tonnage resulting from nonreimbursable grants or guarantees of foreign currency convertibility by the United States Government are also included in this 50 percent requirement.

Two other transportation bills which were the subject of keen controversy were not passed by Congress during the last session. These two measures were the time-lag bill, S.1461, designed to speed up action of the Interstate Commerce Commission on general rate increases, and H.R. 3203, the trip-lease bill, which would have ended the Commission's power to prohibit trip-leasing of motortrucks. Both died in the Senate Committee without coming to a vote on the floor.

Two events during recent months may have a substantial effect upon some segments of the transportation industry. The first of these was the establishment by President Eisenhower on July 12 of a Cabinet Committee on Transport Policy and Organization. Headed by Secretary of Commerce Sinclair Weeks, the Committee has been directed to conduct a review of transportation problems in the national economy. As a first step in getting the study under way, a Working Group to aid the Committee was appointed by Secretary Weeks on September 2, 1954. The Committee has been requested to submit its recommendations to the President by December 1, 1954.

The second of these events was the approval by the House Interstate and Foreign Commerce Committee of an immediate large-scale study of State barriers to interstate truck transportation. Particular emphasis will be placed upon the breakdown in reciprocity as a result of the imposition of multiple highway use taxes. The study is to be conducted by the House Committee's staff, and the findings are expected to be available for the next session of Congress.

SELECTED NEW PUBLICATIONS

1. "An Improved Method of Pricing Fat and Nonfat Solids in Milk," by Norris T. Pritchard, Agr. Market. Serv., U. S. Dept. Agr., July 1954. (Processed.)

2. "Availability and Display of Frozen Foods in Retail Stores in Washington, D. C.," by Dehard B. Johnson, U. S. Dept. Agr. Market. Res. Rept. 73, Aug. 1954. (RMA, Title II.) (Processed.)

3. "Bibliography of Marketing and Other Economic Information for Floriculture and Ornamental Horticulture," compiled by M. Truman Fossum, Agr. Market. Serv., U. S. Dept. Agr., June 1954. (Processed.)

4. "Breaking Out Bales of Cotton Stored On Head," by Jo Brice Wilmeth and Charles D. Bolt, U. S. Dept. Agr. Market. Res. Rept. 61, May 1954. (RMA, Title II.) (Processed.)

5. "Changing Patterns of Milk Consumption in Memphis, Tenn.," by Philip B. Dwoskin, James A. Bayton, and William S. Hoofnagle, U. S. Dept. Agr. Market. Res. Rept. 69, June 1954. (Processed.)

6. "Handling Empty Apple Boxes in Pacific Northwest Packing and Storage Houses," by D. Loyd Hunter, Raoul S. Duerden, Francis Kafer, and Joseph F. Herrick, Jr., U. S. Dept. Agr. Market. Res. Rept. 71, June 1954. (Prepared under RMA, Title II, contract with Research Dept. of Wash. State Apple Comn.)

7. "Homemakers' Use of and Opinions About Fats and Oils Used in Cooking," and Supplement, U. S. Dept. Agr. Market. Res. Rept. 67, June 1954. (RMA, Title II.) (Processed.)

8. "Margins, Shrinkage, and Pricing of Certain Fresh Vegetables in Honolulu," by C. W. Peters, Robert H. Reed, and C. Richard Creek, Hawaii Agr. Expt. Sta., Agr. Econ. Bul. 7, June 1954. (RMA, Title II.)

9. "Marketing Eggs," by T. H. Pond, O. F. Johndrew, Jr., C. C. Warren, and Clara H. Butler, U. S. Dept. Agr.,Farmers' Bul. 1378 (rev. ed.), April 1954.

10. "The Farmer's Share of the Consumer's Food Dollar," by Kenneth E. Ogren, Agr. Market. Serv., U. S. Dept. Agr. Leaflet 123 (rev. ed.). Oct. 1954.

11. "Transportation of Apples in the Appalachian Belt, 1952-53," by James R. Snitzler, Agr. Market. Serv., U. S. Dept. Agr., Aug. 1954. (RMA, Title II.) (Processed.)

12. "Transportation Problems of Expanding Western Agriculture," by William Bredo, Robert O. Shreve, and Charles L. Hamman, Agr. Market. Serv., U. S. Dept. Agr., June 1954. (Prepared under RMA, Title II, contract with the Stanford Res. Inst.) (Processed.)

Publications issued by State Agricultural Experiment Stations may be obtained from the issuing Station.

Table 8.- Farm food products: Retail cost and farm value, July-September 1954, April-June 1954, July-September 1953, and 1947-49 average 1/

Product	Retail unit	Retail cost						Net farm value 2/					
		July - Sept. 1954 3/	Apr.- June 1954	July-Sept. 1953	1947-49 average	Percentage change: July-Sept. 1954 from - Apr.- June 1954	Percentage change: July-Sept. 1954 from - July-Sept. 1953	July-Sept. 1954 3/	Apr.- June 1954	July-Sept. 1953	1947-49 average	Percentage change: July-Sept. 1954 from - Apr.- June 1954	Percentage change: July-Sept. 1954 from - July-Sept. 1953
		Dollars	Dollars	Dollars	Dollars	Percent	Percent	Dollars	Dollars	Dollars	Dollars	Percent	Percent
Market basket	Average quantities purchased per urban wage-earner and clerical-worker family in 1952	987.26	4/986.55	1,013.62	954.76	5/	- 3	423.31	4/433.31	461.46	467.91	- 2	- 8
Meat products		260.37	271.36	275.10	261.20	- 4	- 5	157.35	4/173.64	178.55	176.11	- 9	- 12
Dairy products		179.95	177.60	186.50	168.37	+ 1	- 4	82.09	4/ 79.35	89.31	90.88	+ 3	- 8
Poultry and eggs		101.30	97.83	119.48	116.87	+ 4	- 15	64.50	62.35	82.71	80.53	+ 3	- 22
Bakery and cereal products All ingredients		148.06	146.83	144.08	121.94	+ 1	+ 3	32.35	31.96	30.74	33.16	+ 1	+ 5
Grain		---	---	---	---	---	---	24.32	23.53	23.00	24.40	+ 3	+ 6
All fruits and vegetables		211.17	4/207.11	204.65	195.26	+ 2	+ 3	64.23	4/ 62.14	59.12	61.28	+ 3	+ 9
Fresh fruits and vegetables		121.54	4/118.76	115.16	103.57	+ 2	+ 6	46.35	44.09	40.55	41.85	+ 5	+ 14
Fresh vegetables		59.32	4/ 60.20	57.00	53.14	- 1	+ 4	21.38	21.32	20.62	23.77	5/	+ 4
Processed fruits and vegetables		89.62	88.36	89.49	91.69	+ 1	5/	17.89	4/ 18.06	18.57	19.43	- 1	- 4
Fats and oils		44.82	44.32	42.41	52.25	+ 1	+ 6	15.32	16.39	13.48	18.92	- 7	+ 14
Miscellaneous products		41.59	41.50	41.40	38.87	5/	5/	7.47	7.48	7.55	7.03	5/	- 1
		Cents	Cents	Cents	Cents	Percent	Percent	Cents	Cents	Cents	Cents	Percent	Percent
Beef (Choice grade)	Pound	67.7	68.1	69.3	68.5	- 1	- 2	43.8	43.6	46.9	48.5	5/	- 7
Pork (excluding lard)	Pound	54.4	58.3	58.8	52.8	- 7	- 7	34.0	40.2	39.8	35.2	- 15	- 15
Butter	Pound	69.6	69.6	78.2	79.4	0	- 11	45.0	4/45.1	52.5	57.4	5/	- 14
Cheese, American processed	Pound	56.8	57.3	59.6	52.7	- 1	- 5	27.0	26.1	29.7	32.0	+ 3	- 9
Evaporated milk	14½ ounce can	13.8	13.9	14.4	13.7	- 1	- 4	5.9	5.7	6.3	7.1	+ 4	- 6
Fluid milk	Quart	22.3	21.8	22.8	19.9	+ 2	- 2	10.2	9.8	10.9	10.6	+ 4	- 6
Chickens, frying	Pound	49.0	48.7	53.2	---	+ 1	- 8	30.4	29.7	34.3	---	+ 2	- 11
Eggs	Dozen	55.6	52.3	70.3	66.7	+ 6	- 21	36.2	34.7	51.2	48.0	+ 4	- 29
Bread, white	Pound	17.3	17.0	16.5	13.5	+ 2	+ 5	2.7	2.6	2.4	2.6	+ 4	+ 12
Crackers, soda	Pound	27.2	27.1	27.2	---	5/	0	4.1	4.0	3.8	---	+ 2	+ 8
Corn flakes	12 ounces	21.9	21.9	21.8	17.0	0	5/	3.2	3.0	3.7	3.2	+ 7	- 14
Corn meal	Pound	12.6	12.5	12.6	11.8	+ 1	0	3.3	3.1	4.0	3.6	+ 6	- 18
Flour, white	5 pounds	53.4	53.7	52.0	48.4	- 1	+ 3	20.7	19.8	18.9	20.5	+ 5	+ 10
Rice	Pound	19.6	19.7	21.0	19.2	- 1	- 7	5.9	6.7	7.7	7.8	- 12	- 23
Rolled oats	20 ounces	18.4	18.5	18.4	16.1	- 1	0	4.7	5.1	4.7	5.4	- 8	0
Apples	Pound	15.6	---	15.0	11.3	---	+ 4	6.4	---	6.8	5.2	---	- 6
Grapefruit	Each	---	4/10.6	---	8.7	---	---	---	1.4	---	1.6	---	---
Lemons	Pound	18.8	18.0	20.5	17.7	+ 4	- 8	5.3	5.5	6.7	5.7	- 4	- 21
Oranges	Dozen	65.4	52.5	52.3	46.6	+ 25	+ 25	26.3	18.5	10.6	12.6	+ 42	+148
Beans, green	Pound	18.9	22.2	19.8	21.0	- 15	- 5	8.4	8.6	9.3	9.2	- 2	- 10
Cabbage	Pound	6.3	7.2	7.4	6.9	- 12	- 15	2.0	1.7	2.4	1.9	+ 18	- 17
Carrots	Pound	13.4	13.4	12.6	11.1	0	+ 6	4.6	5.6	4.8	4.2	- 18	- 4
Lettuce	Head	13.4	15.7	16.3	14.5	- 15	- 18	4.4	6.0	7.6	6.4	- 27	- 42
Onions	Pound	7.9	7.6	7.3	8.4	+ 4	+ 8	2.7	2.6	1.7	3.7	+ 4	+ 59
Potatoes	15 pounds	96.1	78.5	73.8	78.8	+ 22	+ 30	35.2	30.8	23.4	38.5	+ 14	+ 50
Sweetpotatoes	Pound	14.4	14.0	15.4	11.2	+ 3	- 6	5.0	5.4	6.2	4.7	- 7	- 19
Tomatoes	Pound	20.9	29.0	22.1	---	- 28	- 5	8.0	8.3	6.7	---	- 4	+ 19
Peaches, canned	No. 2-1/2 can	32.7	32.8	34.1	31.5	5/	- 4	5.2	5.2	5.7	5.3	0	- 9
Orange juice, canned	46 ounce can	36.0	33.5	34.7	---	+ 7	+ 4	9.7	9.4	9.4	---	+ 3	+ 3
Corn, canned	No. 303 can	18.2	18.3	19.0	16.7	- 1	- 4	2.8	2.9	3.0	2.7	- 3	- 7
Peas, canned	No. 303 can	21.3	21.3	21.3	21.4	0	0	3.2	3.2	3.1	3.0	0	+ 3
Tomatoes, canned	No. 2 can	17.4	17.3	17.3	17.0	+ 1	+ 1	3.1	3.1	3.2	3.2	0	- 3
Beans with pork, canned	16 ounce can	14.5	14.5	14.4	---	0	+ 1	2.8	3.1	3.1	---	- 10	- 10
Orange juice concentrate, frozen	6 ounce can	19.4	18.2	20.3	---	+ 7	- 4	5.5	5.2	6.1	---	+ 6	- 10
Strawberries, frozen	12 ounces	36.5	36.7	37.0	---	- 1	- 1	9.8	10.0	10.1	---	- 2	- 3
Beans, green, frozen	10 ounces	24.4	24.5	24.3	---	5/	5/	4.9	4.9	4.9	---	0	0
Peas, frozen	10 ounces	19.3	19.3	18.9	---	0	+ 2	3.3	3.3	3.2	---	0	+ 3
Dried prunes	Pound	31.2	30.3	29.3	23.1	+ 3	+ 6	10.4	4/10.4	10.9	8.8	0	- 5
Navy beans	Pound	17.8	17.5	17.4	19.9	+ 2	+ 2	8.0	8.8	8.6	9.7	- 9	- 7
Margarine, colored	Pound	30.4	29.8	29.3	39.7	+ 2	+ 4	10.0	10.4	8.3	12.4	- 4	+ 20
Peanut butter	Pound	49.4	49.1	49.1	---	+ 1	+ 1	20.1	19.8	19.6	---	+ 2	+ 3
Salad dressing	Pint	36.2	35.8	34.6	37.8	+ 1	+ 5	8.5	9.0	8.1	10.0	- 6	+ 5
Vegetable shortening	Pound	35.6	34.8	34.3	41.1	+ 2	+ 4	12.3	13.0	10.3	15.4	- 5	+ 19
Corn sirup	24 ounces	23.7	23.6	23.5	---	5/	+ 1	3.9	3.7	3.9	---	+ 5	0
Sugar	5 pounds	52.7	52.6	53.0	48.4	5/	- 1	20.5	20.5	20.2	19.4	0	+ 1

1/ Information concerning the sources of price data and calculations of net farm values are given in the Supplement to the July-Sept. 1953 issue of this Situation. Product groups include more items than those listed in this table. For example, the meat products group includes lamb, veal, and lower grades of beef in addition to pork and carcass beef of Choice grade.

2/ Gross farm value adjusted to exclude imputed values of byproducts obtained in processing.

3/ Preliminary estimates.

4/ Revised.

5/ Less than 0.5 percent.

Table 9.- Farm food products: Marketing margin and farmer's share of the retail cost, July-September 1954, April-June 1954, July-September 1953, and 1947-49 average 1/

Product	Retail unit	Marketing margin 2/						Farmer's share			
		July-Sept. 1954 3/	Apr.-June 1954	July-Sept. 1953	1947-49 average	Percentage change July-Sept. 1954 from - Apr.-June 1954	Percentage change July-Sept. 1954 from - July-Sept. 1953	July-Sept. 1954 3/	Apr.-June 1954	July-Sept. 1953	1947-49 average
		Dollars	Dollars	Dollars	Dollars	Percent	Percent	Percent	Percent	Percent	Percent
Market basket	Average quantities purchased per urban wage-earner and clerical-worker family in 1952	563.95	4/553.24	552.16	486.85	+ 2	+ 2	43	44	45	49
Meat products		103.02	4/ 97.72	96.55	85.09	+ 5	+ 7	60	64	65	67
Dairy products		97.86	4/ 98.25	97.19	77.49	5/	+ 1	46	45	48	54
Poultry and eggs		36.80	35.48	36.77	36.34	+ 4	5/	64	64	69	69
Bakery and cereal products											
All ingredients		115.71	114.87	113.34	88.78	+ 1	+ 2	22	22	21	27
Grain		---	---	---	---	---	---	16	16	16	---
All fruits and vegetables		146.94	4/144.97	145.53	133.98	+ 1	+ 1	30	30	29	31
Fresh fruits and vegetables		75.19	4/ 74.67	74.61	61.72	+ 1	+ 1	38	37	35	40
Fresh vegetables		37.94	4/ 38.88	36.38	29.37	- 2	+ 4	36	35	36	45
Processed fruits and vegetables		71.73	4/ 70.30	70.92	72.26	+ 2	+ 1	20	20	21	21
Fats and oils		29.50	27.93	28.93	33.33	+ 6	+ 2	34	37	32	36
Miscellaneous products		34.12	34.02	33.85	31.84	5/	+ 1	18	18	18	18
		Cents	Cents	Cents	Cents	Percent	Percent	Percent	Percent	Percent	Percent
Beef (Choice grade)	Pound	23.9	24.5	22.4	20.0	- 2	+ 7	65	64	68	71
Pork (excluding lard)	Pound	20.4	18.1	19.0	17.6	+ 13	+ 7	63	69	68	67
Butter	Pound	24.6	4/24.5	25.7	22.0	5/	- 4	65	65	67	72
Cheese, American processed	Pound	29.8	31.2	29.9	20.7	- 4	5/	48	46	50	61
Evaporated milk	14½ ounce can	7.9	8.2	8.1	6.6	- 4	- 2	43	41	44	52
Fluid milk	Quart	12.1	12.0	11.9	9.3	+ 1	+ 2	46	45	48	53
Chickens, frying	Pound	18.6	19.0	18.9	---	- 2	- 2	62	61	64	---
Eggs	Dozen	19.4	17.6	19.1	18.7	+ 10	+ 2	65	66	73	72
Bread, white	Pound	14.6	14.4	14.1	10.9	+ 1	+ 4	16	15	15	19
Crackers, soda	Pound	23.1	23.1	23.4	---	0	- 1	15	15	14	---
Corn flakes	12 ounces	18.7	18.9	18.1	13.8	- 1	+ 3	15	14	17	19
Corn meal	Pound	9.3	9.4	8.6	8.2	- 1	+ 8	26	25	32	31
Flour, white	5 pounds	32.7	33.9	33.1	27.9	- 4	- 1	39	37	36	42
Rice	Pound	13.7	13.0	13.3	11.4	+ 5	+ 3	30	34	37	41
Rolled oats	20 ounces	13.7	13.4	13.7	10.7	+ 2	0	26	28	26	34
Apples	Pound	9.2	---	8.2	6.1	---	+ 12	41	---	45	46
Grapefruit	Each	---	4/ 9.2	---	7.1	---	---	---	4/13	---	18
Lemons	Pound	13.5	12.5	13.8	12.0	+ 8	- 2	28	31	33	32
Oranges	Dozen	39.1	34.0	41.7	34.0	+ 15	- 6	40	35	20	27
Beans, green	Pound	10.5	13.6	10.5	11.8	- 23	0	44	39	47	44
Cabbage	Pound	4.3	5.5	5.0	5.0	- 22	- 14	32	24	32	28
Carrots	Pound	8.8	7.8	7.8	6.9	+ 13	+ 13	34	42	38	38
Lettuce	Head	9.0	9.7	8.7	8.1	- 7	+ 3	33	38	47	44
Onions	Pound	5.2	5.0	5.6	4.7	+ 4	- 7	34	34	23	44
Potatoes	15 pounds	60.9	47.7	50.4	37.2	+ 28	+ 21	37	39	32	53
Sweetpotatoes	Pound	9.4	8.6	9.2	6.5	+ 9	+ 2	35	39	40	42
Tomatoes	Pound	12.9	20.7	15.4	---	- 38	- 16	38	29	30	---
Peaches, canned	No. 2-1/2 can	27.5	27.6	28.4	26.2	5/	- 3	16	16	17	17
Orange juice, canned	46 ounce can	26.3	24.1	25.3	---	+ 9	+ 4	27	28	27	---
Corn, canned	No. 303 can	15.4	15.4	16.0	14.0	0	- 4	15	16	16	16
Peas, canned	No. 303 can	18.1	18.1	18.2	18.4	0	- 1	15	15	15	14
Tomatoes, canned	No. 2 can	14.3	14.2	14.1	13.8	+ 1	+ 1	18	18	18	19
Beans with pork, canned	16 ounce can	11.7	11.4	11.3	---	+ 3	+ 4	19	21	22	---
Orange juice concentrate, frozen	6 ounce can	13.9	13.0	14.2	---	+ 7	- 2	28	29	30	---
Strawberries, frozen	12 ounces	26.7	26.7	26.9	---	0	- 1	27	27	27	---
Beans, green, frozen	10 ounces	19.5	19.6	19.4	---	- 1	+ 1	20	20	20	---
Peas, frozen	10 ounces	16.0	16.0	15.7	---	0	+ 2	17	17	17	---
Dried prunes	Pound	20.8	4/19.9	18.4	14.3	+ 5	+ 13	33	34	37	38
Navy beans	Pound	9.8	8.7	8.8	10.2	+ 13	+ 11	45	50	49	49
Margarine, colored	Pound	20.4	19.4	21.0	27.3	+ 5	- 3	33	35	28	31
Peanut butter	Pound	29.3	29.3	29.5	---	0	- 1	41	40	40	---
Salad dressing	Pint	27.7	26.8	26.5	27.8	+ 3	+ 5	23	25	23	26
Vegetable shortening	Pound	23.3	21.8	24.0	25.7	+ 7	- 3	35	37	30	37
Corn sirup	24 ounces	19.8	19.9	19.6	---	- 1	+ 1	16	16	17	---
Sugar	5 pounds	32.2	32.1	32.8	29.0	5/	- 2	39	39	38	40

1/ Information concerning the calculation of the marketing margin and farmer's share are given in the Supplement to the July-Sept. 1953 issue of this Situation. Product groups include more items than those listed in this table. For example, the meat products group includes lamb, veal, and lower grades of beef in addition to pork and carcass beef of Choice grade.

2/ The marketing margin is the difference between the retail cost and the net farm value, table 8.

3/ Preliminary estimates.

4/ Revised.

5/ Less than 0.5 percent.

Table 10.- Farm food products: Retail cost, farm value of equivalent quantities sold by producers, byproduct allowance, marketing margin, and farmer's share of retail cost, July-September 1954 1/

Product	Farm equivalent	Retail unit	Retail cost	Gross farm value	Byproduct allowance	Net farm value	Margin	Farmer's share
			Dollars	Dollars	Dollars	Dollars	Dollars	Percent
Market basket			987.26	---	---	423.31	563.95	43
Meat products			260.37	---	---	157.35	103.02	60
Dairy products			179.95	---	---	82.09	97.86	46
Poultry and eggs		Average quantities purchased	101.30	---	---	64.50	36.80	64
Bakery and cereal products	Farm produce equivalent	per urban						
All ingredients	to products bought	wage-earner	148.06	---	---	32.35	115.71	22
Grain	by urban families	and	---	28.19	3.87	24.32	---	16
All fruits and vegetables		clerical-	211.17	---	---	64.23	146.94	30
Fresh fruits and vegetables		worker	121.54	---	---	46.35	75.19	38
Fresh vegetables		family	59.32	---	---	21.38	37.94	36
Processed fruits and vegetables		in 1952	89.62	---	---	17.89	71.73	20
Fats and oils			44.82	---	---	15.32	29.50	34
Miscellaneous products			41.59	---	---	7.47	34.12	18
			Cents	Cents	Cents	Cents	Cents	Percent
Beef (Choice grade)	2.16 lb. Choice grade cattle	Pound	67.7	47.3	3.5	43.8	23.9	65
Pork (excluding lard)	1.82 lb. hogs	Pound	54.4	37.9	3.9	34.0	20.4	63
Butter	Cream and whole milk	Pound	69.6	---	---	45.0	24.6	65
Cheese, American processed	Milk for American cheese	Pound	56.8	---	---	27.0	29.8	48
Evaporated milk	Milk for evaporating	14½ ounce can	13.8	---	---	5.9	7.9	43
Fluid milk	Wholesale fluid milk	Quart	22.3	---	---	10.2	12.1	46
Chickens, frying	Commercial broilers	Pound	49.0	---	---	30.4	18.6	62
Eggs	1.03 doz.	Dozen	55.6	---	---	36.2	19.4	65
Bread, white	.912 lb. wheat	Pound	17.3	3.1	.4	2.7	14.6	16
Crackers, soda	1.41 lb. wheat	Pound	27.2	4.8	.7	4.1	23.1	15
Corn flakes	1.57 lb. white corn	12 ounces	21.9	4.5	1.3	3.2	18.7	15
Corn meal	1.34 lb. white corn	Pound	12.6	3.8	.5	3.3	9.3	26
Flour, white	7.04 lb. wheat	5 pounds	53.4	23.9	3.2	20.7	32.7	39
Rice	1.68 lb. rough rice	Pound	19.6	6.9	1.0	5.9	13.7	30
Rolled oats	2.56 lb. oats	20 ounces	18.4	5.5	.8	4.7	13.7	26
Apples 2/	1.08 lb. apples	Pound	15.6	---	---	6.4	9.2	41
Grapefruit	1.04 grapefruit	Each	---	---	---	---	---	---
Lemons	1.04 lb. lemons	Pound	18.8	---	---	5.3	13.5	28
Oranges	1.04 doz. oranges	Dozen	65.4	---	---	26.3	39.1	40
Beans, green	1.09 lb. snap beans	Pound	18.9	---	---	8.4	10.5	44
Cabbage	1.10 lb. cabbage	Pound	6.3	---	---	2.0	4.3	32
Carrots	1.11 lb. carrots	Pound	13.4	---	---	4.6	8.8	34
Lettuce	1.30 lb. lettuce	Head	13.4	---	---	4.4	9.0	33
Onions	1.06 lb. onions	Pound	7.9	---	---	2.7	5.2	34
Potatoes	15.62 lb. potatoes	15 pounds	96.1	---	---	35.2	60.9	37
Sweetpotatoes 2/	1.12 lb. sweetpotatoes	Pound	14.4	---	---	5.0	9.4	35
Tomatoes	1.18 lb. tomatoes	Pound	20.9	---	---	8.0	12.9	38
Peaches, canned	1.89 lb. Calif. cling	No. 2-1/2 can	32.7	---	---	5.2	27.5	16
Orange juice, canned	5.38 lb. Fla. oranges for canning	46 ounce can	36.0	---	---	9.7	26.3	27
Corn, canned	2.49 lb. sweet corn	No. 303 can	18.2	---	---	2.8	15.4	15
Peas, canned	.69 lb. peas for canning	No. 303 can	21.3	---	---	3.2	18.1	15
Tomatoes, canned	2.25 lb. tomatoes for processing	No. 2 can	17.4	---	---	3.1	14.3	18
Beans with pork, canned	.35 lb. Mich. pea beans	16 ounce can	14.5	---	---	2.8	11.7	19
Orange juice concentrate, frozen	3.05 lb. Fla. oranges for frozen concentrated juice	6 ounce can	19.4	---	---	5.5	13.9	28
Strawberries, frozen	.61 lb. strawberries for processing	12 ounces	36.5	---	---	9.8	26.7	27
Beans, green, frozen	.79 lb. beans for processing	10 ounces	24.4	---	---	4.9	19.5	20
Peas, frozen	.70 lb. peas for freezing	10 ounces	19.3	---	---	3.3	16.0	17
Dried prunes	.97 lb. dried prunes	Pound	31.2	---	---	10.4	20.8	33
Navy beans	1.00 lb. Mich. pea beans	Pound	17.8	---	---	8.0	9.8	45
Margarine, colored	Soybeans, cottonseed, and milk	Pound	30.4	---	---	10.0	20.4	33
Peanut butter	1.77 lb. peanuts	Pound	49.4	---	---	20.1	29.3	41
Salad dressing	Cottonseed, soybeans, sugar, and eggs	Pint	36.2	---	---	8.5	27.7	23
Vegetable shortening	Soybeans and cottonseed	Pound	35.6	---	---	12.3	23.3	35
Corn sirup	1.9 lb. corn	24 ounces	23.7	5.2	1.3	3.9	19.8	16
Sugar	36.02 lb. sugar beets	5 pounds	52.7	21.6	1.1	3/20.5	3/32.2	3/39

1/ Information concerning the sources of price data and calculation of net farm values, marketing margins, and the farmer's share are given in the Supplement to the July-Sept. 1953 issue of this Situation. Product groups include more items than those listed in this table. For example, the meat products group includes lamb, veal, and lower grades of beef in addition to pork and carcass beef of Choice grade.

2/ 2-month average.

3/ Net farm value adjusted for Government payments to producers was 24.6 cents, margin adjusted for Government processor tax was 29.5 cents, farmer's share of retail cost based on adjusted farm value was 47 percent.

Preliminary estimates.